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PEACE TRAINING OF OFFICERS.

FROM REMARKS INTRODUCTORY TO THE COURSE IN MILITARY ART, AT THE
INFANTRY AND CAVALRY SCHOOL AND STAFF COLLEGE.

BY MAJOR EBEN SWIFT, INSTRUCTOR.

THIS day is a notable one in the history of Fort Leavenworth. From humble beginnings some twenty-three years ago, the school has passed through many changes, generally for the better, until now we have a class which comes from nearly every corps and regiment, each member bearing the certificate of his commanding officer that the best man is sent. The Staff Class also have won their places by the hardest kind of competition. To belong to such a representative body is a high honor. The best work, the greatest zeal and the most conscientious performance of duty are assured from the first. At last the old kindergarten has disappeared and in its place a military university has risen. For such an institution a great future should be assured, making use of the best experience of others, and not forgetting what we have ourselves learned.

This is an appropriate occasion to outline something of the course in the military art, explain the aids upon which

we will rely and point out the great objective which we wish to attain. So much of the methods are new, so flexible are our rules, and so broad is all military doctrine, that these matters must be approached with unusual care.

The idea of turning out trained soldiers from a university is, I know, ridiculed by many, who fail to see the analogy between other professions and our own. No one refuses to recognize the graduates of the schools of medicine, electricity, law, engineering and others, as competent in their professions, but it is natural to ask the question, "How can soldiers obtain the necessary practice in their profession, which in all peaceful arts is so easy to secure?" Inability to solve this question as wars became rare, caused the military art to fall behind other arts and led to some of the greatest failures in history. It was maintained that the theory alone could be learned in time of peace, so that when war actually did occur the armies found themselves overwhelmed with knowledge that was fine in peace but useless in war.

The Germans had their attention directed to this matter by their own misfortunes, and decided that if a school of war were not possible the next best thing was to make their peace training come as closely as practicable to the actual condition of war. Under the guidance of the greatest of modern generals, who in the years preceding his great successes was commonly called the "Schoolmaster," new methods of giving the practice were introduced in the schools and the army. Then after three successful wars in six years the old fallacy that "war alone teaches war" was dispelled. The chasm between practice and theory was bridged at last—an undertaking which was long supposed to be impossible in our profession, although easy in others. It cannot be said, however, that the world ceased to view the university soldier with surprise and suspicion. It is a part of the slow development of a great idea. From the club of primeval man to the magazine rifle of to-day the changes have not been rapid. The idea of a flank attack was as slow to dawn upon the human mind as the forging of metals was to be comprehended by the artisans. The art of issuing a field order to a large command

came more slowly than the steam engine and almost as late as the telephone.

The practical test of the new method wrought the third revolution in the art of war in one hundred years. Frederick the Great had inherited a ready-made army. It had been trained in time of peace to a high degree of proficiency without especial reference to its usefulness in war, but he found at once that he could march all round his enemies and strike where he pleased. His victories quickly proved him to be the greatest soldier of his time, and his army became the accepted model for the world. Military men of every nation made pilgrimages to his maneuver grounds at Potsdam, Spandau and Berlin, and sought eagerly for the slightest bit of information about his methods. A system of parade ground maneuvers, which leaves out of question the terrain, cannot fail to strike us as strange at this day. Frederick had only been dead twenty years, and his army still contained some of his best soldiers, when the Corsican captured his capital. A new master had come who knew the relation between the ground and the battle, a matter which had been ignored until then. This single idea developed by a man of wonderful mental and physical capacity placed the French nation at the front of the world. Then we began to follow blindly the ways of the French soldiers, adopted their words into our military vocabulary, and for fifty years studied Napoleon Bonaparte. Since the battles of Metz and Sedan we have turned again to the Prussians.

Our own military history, great as it has been, does not encourage us to ignore these lessons taught by foreigners.

A certain regiment on our frontier in the spring of 1861 contained about thirty-five officers. It was a good regiment and had been officered with great care. In a rather small way its experience had been great, for it had much active work chasing Indians over a great expanse of country. Within a few months, at least half of the officers of that regiment were generals of the line, and four of them were soon at the head of great armies. When it came to applying their previous knowledge to greater questions than came up at a frontier post or on an Indian scout, they found themselves

without experience, instruction or precedent. It was a year and a half before the troops which they organized and commanded were capable of really good work, notwithstanding all the aid that money, patriotism and ability could bring to help. At the present day the country will expect quicker work than that. It is absolutely necessary, now that modern methods are beginning to be developed all around us in the world, and when readiness for war is the first requisite of a great State.

Do not understand that I am holding before you the glittering prospects of rank that came to those officers in 1861. Such an occasion is not likely to occur again, and, in fact, it is a part of our work to make it still more remote. But in any emergency requiring a great army, a large number of staff officers of the rank and age of this very audience, would be required for all commands. The last hundred years have given such cases as a Gneisenau for a Blucher, a Moltke for a king, a Blumenthal for a prince, and, to take a better example from our republican form of government, a Koerner for a political chieftain. How much we ourselves owe to Von Steuben we will probably never tell. These are the kinds of places which Fort Leavenworth graduates will be called to fill.

As I have intimated, the early experience in the Civil War was a painful one. The first battles excited the risibilities of the world, and are said to have brought from the greatest soldier of the age the cynical remark, that he was not paying attention to the war in America, because he was not interested in the maneuvers of an armed mob. Whether true or not, that statement well expresses the common idea then held of our military efforts—an idea that was not dispelled for years. The sad experience of the first Bull Run was not improved nearly a year later when the battle of Shiloh showed every fault of raw troops, notwithstanding all the efforts at drill and discipline which had been applied by the best soldiers we had. Without entering into the disputed points concerning Shiloh, we cannot fail to agree on the facts, that one army passed several days forming line of battle within sight of the opposing camp, that a commanding general was not able to

bring up a command six miles away, and that at the close of a day of battle only about ten thousand out of more than eighty thousand who started in, were on the line of battle. The Army of the Potomac passed under the command of its fourth commander before the purposes, uses and organization of cavalry received attention. Artillery was not in a better condition. Such things appear strange to amateurs as well as to professional soldiers. But it is also strange that the magnificent Roman armies should have been fooled and ruined by the simple stratagems of Hannibal, or that the Grecian generals should have been confounded by the newness of the idea of a flank attack. A new idea in war is as slow to arrive as any other momentous event in the history of mankind.

Not the least of our sad experiences during the Civil War was the fact, that many excellent officers were ruined before they had a fair chance to learn, while others whose mistakes were just as great were permitted to go on and learn. The point of greatest importance for us to consider is the fact, that ALL had to learn. No man ever jumped into the field of battle, fully armed and equipped, like the dragon's brood in the fable.

Time went on, and at the end of four years our armies were equal to any that history knows of. In maneuvering and in marching, the leaders and the troops were unsurpassed. In the tables of losses we find a record that will not soon be equaled, if we are to regard the South African and Manchurian campaigns as evidences of the tendencies of modern war. It was an army formed in the school of experience, such as Napoleon found in his hand at the end of the wars of the French Revolution, and with which he was able to fight Europe for twenty years. It was such an army as a Hannibal or an Alexander inherited from his father. Such armies of course are perfect in their way. The process by which they learned may not be improved upon. If war were the common state of mankind, we might continue to rely upon the same school and to believe that no other would suit.

The adoption of a suitable system of peace training did not come quickly. It was years before it was evolved, and it

was the result of many independent lines of thought. Some ideas ran into extremes as in Kriegsspiel, for instance. It was long before it was possible to harmonize them all into a consistent system in which each had its place. The term "deductive system" or "applicatory system," best describes the whole. It had its inception in the necessity for supplying troops in time of peace with more of the experience and training which they get in actual war. After learning the theory, it was thought best to apply it to various concrete cases, which were made as practical and real as possible. Tactical schemes were worked out, based on probable and real military situations. The principle and the application were given at the same time, and thus both were firmly fixed in the mind.

In working out this idea it soon became apparent that the new system possessed some decided advantages, which might even be claimed as affording better instruction than the old school of experience in actual war. In peace we can learn one element of one problem at a time, turning from one to the other in order. In war the ground, the troops, your own decisions, the orders of your superiors, the killed, the wounded, are crowded upon you at once with a thousand variations. It is like taking the university course without having studied the primer. The greatest difficulty in peace training is in the length of time it takes to acquire knowledge in this way. The variety of situations is so infinite that no ordinary school course could do more than indicate the general object and character of this kind of study. We may only begin by producing a small variety of situations, presented and applied in such a way as to make the lesson like real experience. To form the "military eye," as it were, to develop a proper habit of thought and action, and to render decisions quickly and accurately, we must rely on practice and intelligence before the highest result will be reached. In the same way that the habit of the drill ground is carried into battle by well disciplined troops, we hope to see the maneuvering habit burned into the soul of every man who is called to command.

The applicatory system has its value for troops, but its

value for those who exercise the higher duties of command is greater. Here it is possible to reproduce in the section room almost exactly the conditions of a real campaign. In fact, we can take an example from history and work it out from our own point of view, aided by the light of experience and criticism. We shall lack the sense of responsibility, the excitement and the physical strain. We gain by being able to submit our decisions to the test of criticism and study. In the real campaign we have not the time to digest our experience. In the imaginary campaign we exclude every matter that would tend to divert the untrained mind from the particular subject in hand.

The results of the new methods are startling indeed. We might expect nothing but success from a nation which for centuries had bound her best and brightest men to the trade of war. But when the Chilians, the Turks and the Japanese, adopting these ideas under good instructors, astonish us by their military proficiency, obtained in a marvelously short period of time, we must seek for the cause in the correctness of their system of training. We must realize that wars are to be conducted by peace-trained soldiers, led by peace-trained generals, who are assisted by a peace-trained staff. Under this careful system we must learn how to develop safe leaders for our troops. Brilliance of the old kind has little of its old chance in these days of intrenchments and long-range artillery. Promotion is slow and men do not reach high position in youth, but veterans of forty years of peace service will take the field with all the confidence of men who have fought in a hundred battles. This has been done often within the last forty years. It is the modern development of war. Perhaps under the new tests we may reverse the old maxim, that "In our profession the fittest do not survive."

The field maneuvers represent the supreme effort in time of peace to show an army ready for war. They form the graduating thesis of the applicatory system of instruction. In them the troops as well as the leaders show all they know about their profession. But as field maneuvers are merely a necessary preliminary to real war, so must they also be pre-

ceded by a careful course of elementary training. Without it the maneuvers would be as unsatisfactory as war itself without preparation. The leaders would show vacillation and indecision in every form. The troops would be placed in false and unreal positions, which they would be quick to discover but unable to remedy for themselves. The whole would lose the character of a military exercise and degenerate into an old time "sham fight" or "militia muster." To teach a man to swim let us not throw him into deep water before he can paddle a bit in the shallows.

Taking account only of the duties of officers, we may divide them into two classes—those conducted indoors and those conducted in the open. In the first class are map problems and map maneuvers; in the second class are staff rides or terrain exercises and maneuvers. I will discuss them in the order named.

Officers joining with nearly four years of service may of course be presumed to be familiar with the drill book, the regulations, and the ordinary field service of troops.

Starting out on the broad principle that education consists in thoroughly learning one thing at a time, we place map problems at the head of the practical course. The map problem is simply a problem, admitting of a written answer, solved by the aid of a map. The questions are such as require a study of the map, and, under the usual conditions of service, would be solved by the commanding officer and his staff. It is natural that the map should call for our first attention because we ordinarily see it before we have a chance to examine the ground which it represents. An early experience is thus obtained of the difficulties which are encountered at the beginning of every military operation. It is better than the corresponding experience in active service, because you have nothing to divert you, plenty of time to make up your mind, and full opportunity to discuss and criticise. It is supposed that training of this kind develops the judgment in such a way as to lead to prompt and rapid decisions. The mind is led into the same channels it would follow in active service; you study long over some order that would perhaps be given verbally and

without preparation, and when the day of action comes, men will say that you are filled with quick and happy inspirations in the field. A great soldier has left on record the statement, that it was not genius that revealed to him the sudden and unerring solutions of military problems that often astonished the world—it was long study. "I brood upon the map," he said. The study of the map, then, helps us to give the proper direction of events, and to formulate definite plans of action. In other words, it is a study of orders.

We will have a large number of map problems with solved solutions; after that there will be problems for original discussion and solution. At the completion of this you will be able to solve most of the ordinary situations and issue proper orders to meet them.

One step further than the map problem is the map maneuver, or the Kriegsspiel of the Germans. It is simply an exercise where we show the operations of war by the movement of small blocks, representing troops, over the surface of a map. It supplies an idea of the moving incidents of the campaign and those matters which depend upon the factors of time and space, and the various relations between the troops and the ground, such as the ployment and deployment of lines and columns, rates of march, the capacities of defensive and offensive positions to commands of a certain size. Having, therefore, filled the mind with some military situation; having formed your plan and issued your orders, and made your dispositions, the whole may be tested by map maneuvers.

The original idea of the Kriegsspiel and, in fact, the leading idea of every practice of this kind, up to a recent date, was to make it a "battle exercise," in which decisions were given as to the actual loss in killed and wounded, the effect of fatigue and demoralization, and the influence of chance on the final result; in fact, all modifying factors that could be thought of were duly considered. It made an exceedingly complicated system, requiring much study and practice. Its many difficulties limited its use to a few localities where there were exceptional advantages in its favor. Recent improvements in weapons of war and important

changes in methods of attack and defense have caused doubt to be felt as to the accuracy of former rules under the latest conditions, and gradually the battle idea has become eliminated from the exercise. This simplifies it greatly and leads to its logical use as an aid to instruction. We will use it as an exercise simply in maneuvering troops up to the moment of actual contact. Prior to this the small combats of minor importance are settled in a general way by the decision of the umpire. As soon as the plans of both sides are developed and there only remains the final test of battle to decide the result, the screen is removed and the umpire discusses the final situation.

A full discussion of the so-called war-game had better be reserved for another occasion. At present it is sufficient to say that this kind of instruction is officially recognized in most military countries. In many of them it is an obligatory part of the military education of officers, and in its simpler forms it is used for the indoor instruction of non-commissioned officers and men. These things therefore are claimed for the maneuver on the map:

1. It supplements previous exercises by practice in map reading.
2. It has the advantage of presenting the whole situation and not a limited portion of it to the view.
3. It gives practice in issuing, interpreting and executing orders.
4. It gives practice in showing the principles and application of strategy and tactics. In the same way it is a useful adjunct to the study of military history.
5. It gives practice in making quick and accurate decisions. In the application of principles it shows in a few hours operations that would ordinarily consume many days.

The next form of exercise has been called war ride, staff ride, terrain exercise, and so on. The troops are still imaginary, but the map is replaced by the real ground. The officers work out their problems in the open. In this way they come to understand the relations between the ground and the map, they see the limitations that exist in the picture of ground given by the very best map, and they verify

the principle, that while general directions are given from the map, the details must be left to the commander on the ground. The troops remain imaginary, because the idea is still to develop and persistently to cultivate a perception of the capabilities of the ground itself, a quality which is all important and exceedingly rare. It means an ability to grasp the military features of a landscape, just by looking at it, to conceal your own designs and to discover those of the enemy from slight indications, to make proper dispositions for every emergency, to select an objective and not to lose it. It is evident that the presence of the troops would tend to divert the attention, and that the tendency would be to devote one's self to the personal direction of the troops. There are good reasons why troops need not be present in preliminary exercises of this kind.

The exercise may be conducted under a dozen or more forms. In all of them the object is to visit some piece of country where the various conditions of military study are imagined just as if the landscape were full of troops. For instance a detail of officers could ride out and select ground for future battles in the neighborhood, just as German staff officers are said to have done in France before the War of 1870, and just as we know that the Confederate General Johnston did before he retreated on Atlanta in 1864. On a smaller scale we might indicate how we would defend a village, attack a wood, cross a river, ascend a height, or search a country for another force.

Next come maneuvers, in which the officers assume command of troops in the open. Here again we proceed ordinarily through several stages of instruction and practice. At first the enemy need not be indicated, or he may only be outlined by flags and a few men representing larger bodies of troops. Now for the first time you have to consider the powers of the troops to undergo exertion. The practical application of this is that the energy of troops can be reduced more by fatigue than by the fire of the enemy. Where we lose one man by a bullet, we shall lose three or four from fatigue or other disorganizing causes.

Finally opposing forces are introduced, the fire is represented by blank cartridges, and we endeavor to represent the conditions of hostile contact. The guiding principle for officers will be that tactical skill in officers of low rank will be necessary to success. By tactical skill is meant the ability to judge correctly and to maneuver properly over varied ground. An easy self-confidence and a readier assumption of the leadership of men in trying situations will replace the hesitation, contradictory orders and delays of the man who has never tried his powers before.

So far we have considered only the value of experience gathered by each man for himself and by himself. There is still another kind of experience which we should learn to use, and that is the experience of others. The causes of the triumphs and disasters of the past form a class of study which will best lead us to an appreciation of the meaning of strategy. In former times these subjects were made the bases of elaborate treatises, logically arranged, with principles boldly stated and examples cited to fit each case. The fault of such a system is in the fact, that this strategy is often an afterthought of the ingenious commentator who quotes the case, and that historical incidents can generally be found to illustrate almost any kind of a principle. The old idea of teaching the art of war as a doctrine is now changed. The higher theory as taught by the books is put aside, and we study the campaigns first and pick out the strategy afterwards, thus reversing the former method. Here, then, we have another brilliant example of the study of principles by their application. "Study attentively," says Napoleon, "the campaigns of the great masters." That wise advice was not understood for a long time. It was his own practice, as we now know, but the added importance of the study of military history in the curriculum of the war college is a recent idea.

Here, then, are the general principles upon which we expect to lead to an appreciation and knowledge of the higher duties of commanding men, a knowledge which at the least will fit you to act as staff officers and to aid in carrying out the will of a commanding general. Lack of time will prevent the full development of the course for both classes,* as

this school has not yet reached the point where all preliminary study has been had in the garrison school; but this plan will be consistently followed as far as possible.

It would be easy to adopt a course of study, filled with the military pedantry of our own and other ages, and this is a common error with those who attempt military study. Likewise, as all arts and sciences are brought to assist in modern warfare, we might supplement our previous studies by technical work, which would undoubtedly be of use. But none of this would fill the greatest void in our education, and practice us in the hardest duties of our office, or prepare us for the exercise of our wisest and soundest judgment. Military study must include not only the direction of troops as fighting bodies, but all the arrangements concerning their marching, rest and safety, their organization, equipment and supply. It involves the translation of these ideas into proper orders, it covers the collection and record of all operations. Not the least of its objects is the preparation of problems, the conduct of field maneuvers, and the duties of umpires. Our goal is the leading of troops; our ambition is to learn the art of commanding men.

The wars of our day have changed in character. No longer waged in the name of religion or to satisfy the jealousies of reigning houses, they now result from great national movements, aims and ambitions. The consolidation of nations on racial lines makes greater the national interests involved, and probably adds to the bitterness of war. The advance of civilization may not be an unmixed blessing to humanity. It makes new conditions necessary to national existence. Such are a market for surplus products, work for all workers, room for the overflow of population. In meeting these conditions, diverse interests will clash and war will result, with ever increasing skill and ever growing armies and navies. Whether the wars for the rights of colonization and trade will reach us in our day, is hard to say. We may be sure, however, that greater efforts than ever before will be made to attain the ends of war, and that the problems of military men will be correspondingly great.

*The Staff Class and the Class of the Infantry and Cavalry School.

SHALL SUBORDINATE OFFICERS LEARN THE BUSINESS OF GENERALS?

To the Editor of the Cavalry Journal:

IN the *Army and Navy Journal* of February the 20th appeared an article by Major Bingham of the Corps of Engineers, criticising the tendency in our service to teach a general's business to officers of subordinate rank. Among some old papers pertaining to the Lyceum conducted at this post in the winter of 1897-98, have been found the following documents, which are self explanatory and so peculiarly applicable to the discussion inaugurated by General Bingham that I send you a copy for publication in the JOURNAL:

"POST LYCEUM,
"FORT APACHE, ARIZONA, Jan. 3, 1898.

"MEMORANDUM:

"At the meeting of the Lyceum last week I submitted for discussion at this session a proposition to adopt certain problems for solution as a part of the Lyceum course. Two of these were on Indian and four on civilized warfare.

"During the past week the proposed problems on civilized warfare have been criticised upon the ground that they deal with subjects with which persons of our rank are little concerned. That ancient and respectable (?) dictum, that we should content ourselves with studying our own duties (presumably on the parade ground) and not aspire to a knowledge of the business of a general officer, has been cited as a squelcher to this proposition. It is a pity that in this day of reviving interest and enthusiasm in acquiring a practical knowledge of a soldier's actual every-day duty in time of war, this illogical bugaboo and stumbling-block to progress cannot receive a decent burial. It has long been a corpse, after a harmful and unjustifiable existence.

"I presume it will not here be thought impertinent seriously to consider whether the study of strategy is not studying a general's business; and whether a general should wait

until he becomes a general before undertaking to learn his business. History is crowded with instances where, upon the outbreak of hostilities (and war generally arises unexpectedly), the mantle of general officers has immediately fallen on colonels and lieutenant-colonels. The history of our Civil War furnishes instances where this mantle fell upon many officers who were captains, several who were lieutenants (but lately cadets), and at least two who were doctors when the war began. Such responsibilities, devolving upon them in a totally unforeseen manner, found them none too familiar with the nature of their obligations.

"But, ignoring entirely the exceedingly remote possibility that any of us will ever be struck by such lightning, let us assume (what is not true) that it is a general's business alone which these problems are calculated to teach. Then let us address our discussion to the more practical question, how we are to fit ourselves to render, in time of war, creditable service as staff-officers to our generals.

"Does a general do all of his own work, or most of it through his staff officers? Who works out the innumerable practical details of tactics and logistics upon which his orders are based? Who draws up the drafts of the orders themselves, and sees that all the details covered thereby are carefully explained to subordinate commanders? The general commanding a large force cannot be everywhere at once to give information and correct mistakes. Upon whom does he rely to do this? There are few military geniuses, like Napoleon and Von Moltke, who never need assistance or advice. With whom does the average general most frequently counsel, even concerning his strategical purposes? Can a general expect valuable service or sound judgment from a staff-officer who knows nothing about a "general's business?" Wherever in war the government needs one general, there it also needs from ten to twenty well trained staff-officers.

"I will acknowledge that during my service of twenty years I have several times encountered in service periodicals articles voicing criticism similar to that I am now replying to. It has seemed to me that such critics have always ignored the considerations I have just mentioned, but this was natural, as those who have presumed to publish criticisms have generally been among the class who have the least knowledge of the instruction really most needed by army officers. Possessing generally no practical experience with the army, they are *practically* ignorant of the state of instruction in the army at large.

"The field exercises we have been having for a number of weeks are the solution of simple military problems, involving the duties and responsibilities of majors, captains and lieutenants. The entire available command participated in them, they covered all the terrain immediately surrounding the post, and each has been assigned to a designated officer for discussion before the Lyceum. This discussion will cover so well the ground of simple problems, with our command, on the terrain covered by our Lyceum map, that additional elementary problems limited to the same command and terrain could not be more than an approximate duplication of those already assigned for consideration.

"To maintain interest, it is highly desirable to have something different, and I know of no more important subject pertaining to actual war, as well as to field exercises, than the proper preparation and form of field orders. I think I am well within the limits of conservative judgment, when I announce a conviction that the very great majority of our officers are deficient in knowledge of this important subject. As the problems here proposed in civilized warfare deal very largely with the preparation of field orders in proper form, I think they are pertinent and appropriate.

"Though the assumed force seems disproportionately large when compared with our present personal probabilities in the way of command and responsibility, the orders required for the operations of such a force will contain only such provisions as are equally required in orders regulating the operations of smaller commands.

"Another reason for assuming a force of considerable size, may be found in the impossibility of establishing a proper tactical system of outposts, with a force the strength of ours, for a post situated as is Fort Apache.

"An accurate knowledge of the proper form and contents of a field order is necessary to all officers, regardless of their rank, for though it be possible an officer may never be called upon to issue an order, all must necessarily have to receive and interpret them. Now the method pursued in teaching the art of reading maps is to teach the art of making them, and I believe there is no better way of creating capacity for properly interpreting orders than teaching how to make them.

"Few have either the time or inclination to complete a thorough study of such a tedious subject voluntarily. They must be driven to it by an exacting responsibility or special assignment. Interest must be aroused, or the necessity must

be great, before the subject can be pursued with that degree of zeal and enthusiasm which produces successful results. I know of no better place to make a beginning than in the Lyceum. The scope of Lyceums must necessarily widen as time passes, and I see no good reason why our Lyceum should be limited to following in the wake rather than proceeding with the van of progress.

"There can be no possible doubt that a knowledge of this subject should be acquired prior to the commencement of war. In support of the assertions and sentiments set forth in these remarks, I desire to read you a few extracts from a lecture on this subject delivered by Captain Eben Swift, Fifth Cavalry, when he was an instructor in the art of war at the Infantry and Cavalry School, in 1895."

The above memorandum was signed "J. F. Bell, Lieutenant, Seventh Cavalry." Though still a lieutenant when the war with Spain broke out only *three months later*, this officer was a brigadier-general of volunteers in less than two years after his Lyceum argument.

The problems were adopted and solved by the Lyceum. Copies of them are enclosed herewith, together with a copy of Lieutenant Bell's solution of one of them.

Very respectfully,

GEO. B. RODNEY,

First Lieutenant, Fifth Cavalry.

FORT APACHE, ARIZONA, November 15, 1904.

PROPOSED PROBLEMS

FOR SOLUTION BY LYCEUM AT FORT APACHE, ARIZONA TERRITORY.

INDIAN WARFARE.

General Situation.

It will be assumed that the Chiricahua Cattle Company in bringing in a herd of cattle to this post stops for the night on the south bank of Black River, in the vicinity of a camp of Indians on a hunting expedition from the San Carlos Reservation. On arrival at the post the representative of the

company reports to the commanding officer that during the night some of his cattle disappeared and that after a careful search their trail was found and followed into the ranchería of two Indian families, where a part of the meat was found. There were about seventy-five Indians in the entire band, twenty-five of whom were well armed, able-bodied bucks, the rest being old men, women and children. Two of the young men acknowledge taking the cattle, but refuse to make reparation, claiming the cattle by way of remuneration for the privilege of passing through their land. The other members of the band support them and refuse to allow their arrest by the cattle men.

Problem No. 1. Special Situation.

These facts are reported to the Agent at San Carlos, who requests the commanding officer at Fort Apache to send out and arrest those two Indians and confine them in the guard-house at Apache until he can send after them and investigate the case. It is known that they are in an ugly mood, and will not permit arrest in the usual way by a few men or by Indian scouts. The commanding officer concludes to send a military command.

Required :

1st. An order prepared in due form, directing the duty, showing the constitution of the command deemed proper to send, and covering all other details necessary and proper to be covered in such a case.

2d. A written memorandum, setting forth in detail the methods to be followed in conducting negotiations with the Indians and in making the arrest, showing clearly such precautions as should be taken to provide for a contingency of treachery or resistance.

Problem No. 2. Special Situation.

The occurrences described in Problem No. 1, and other troubles with cattlemen, result in hostilities, and the Indians of both the San Carlos and White Mountain reservations conclude to go to war. As a preliminary, however, it is agreed to make a secret preconcerted attack upon Fort Apache for

the purpose of plunder and of releasing the two imprisoned Indians. The telegraph lines between Carlos and Holbrook are cut and the Indian concentration takes place at night, unknown to the military authorities. A friendly Indian arrives at the post, reports the state of affairs to the commanding officer, and informs him that the post will be attacked within an hour on all sides at once.

Required: Written reports setting forth:

- 1st. Best dispositions of the available force of the post to resist such an attack.
- 2d. What should be done to give the alarm to the surrounding community, and how this can best be accomplished.

3d. Assuming that sufficient time has been had to prepare for such an attack, what should be done in anticipation of a siege by an overwhelming number of Indians, in the way of necessary precautions and preparation of the available force, construction of trenches, barricades, etc., with facilities and material available; their location, material of which constructed, etc.

CIVILIZED WARFARE.

General Situation.

An army of the South (Blue) with a base on the Southern Pacific is operating against an army of the North (Brown) whose base is on the Santa Fé. An advanced brigade of Blues, consisting of the First, Second and Third Regiments of Infantry, headquarters and two squadrons Fourth Regiment of Cavalry, Light Battery "A" Fourth Artillery, Company A, Corps of Engineers and Company B, Hospital Corps, has advanced to Fort Apache and there established a sub-base, or dépôt of supplies.

Problem No. 3. Special Situation.

The Browns begin to advance southward in two columns. One starts at Winslow, probably intending to proceed via Heber and Pinedale to a junction with the other, which proceeds southward on the Holbrook Road. The Blue brigade commander receives orders from his division commander, who is advancing from the south, to leave a small guard for

his post and dépôt of supplies and proceed with the rest of his brigade on an armed reconnaissance of the enemy. He decides to advance in two columns also, one on the Holbrook Road, via Cooley's Ranch, the other via Forestdale and Pine-dale to a junction, if desirable or necessary, with the first-mentioned, on the Holbrook Road. Columns of enemy thought to be about equal in strength.

Required:

- 1st. Division and distribution of troops.
- 2d. Models of orders to be issued by the brigade commander.
- 3d. Models of orders to be issued by the commander of each column, showing order of march, composition of each portion of the column, advance-guard, main body, etc.
- 4th. Models of orders issued by commanders of the two advance-guards, indicating order of march, duty expected, and such other things as are necessary and proper.

Problem No. 4. Special Situation.

The Blue brigade develops and reports upon the enemy, unites at Fool Hollow, and falls back to Cooley's Ranch, closely followed by the eastern column of Browns.

Required: Written reports embodying:

- 1st. Model of order to be issued by the brigade commander (Blue) for the movement, showing division and distribution of troops, rear-guard, main body, etc.
- 2d. Model of order issued by commander of rear-guard, specifying duty expected, order of march, etc.

• Problem No. 5. Special Situation.

At Cooley's Ranch the brigade commander ascertains that the western column of Browns is proceeding via Forestdale and Cedar Creek toward Fort Apache, and receives instructions to leave a small containing force at Cooley's with orders to retire slowly, delaying the enemy as much as possible, and with the rest of his command to hurry back and establish outposts for the protection of the post, dépôt of supplies and the Agency Ford, which he is cautioned to pre-

vent being forced or turned, and to hold at all hazards.

Required:

- 1st. Written reports showing division and distribution of entire force, strengths of different portions of outposts, etc.
- 2d. Showing location of reserves, supports, pickets, or cossack posts, etc., and of lines of observation and resistance, including such modifications as may be necessary by night.
- 3d. Such special provisions as are necessary for the regulation of practical details pertaining to division of time, rotation of duties, relief of different components of outposts, etc.
- 4th. Such minor field engineering operations as might be necessary accessories to the plan of outposts adopted, *i.e.*, location of temporary roads to facilitate passage of troops to and from lines of observation and resistance, and from one portion to another, location and character of field fortifications and line of trenches, and location and character of means of rapid communication, *i.e.*, field telegraph or telephone lines.
- 5th. Handling of the force appropriate to attacks from the direction of Cedar Creek and Cooley's and from both directions at once.

Problem No. 6.

Models of orders covering the operations and subjects discussed in Problem No. 5.

SOLUTION OF PROBLEM NO. 3,

1st. *Division and Distribution of Troops.*

Assuming that the infantry regiments are organized in three battalions of four companies each; that Colonel A commands the First Infantry; Colonel B, the Second; and Colonel C, the Third; the brigade commander would assign one battalion of infantry to the duty of guarding the wagon train, dépôt of supplies and post, and distribute the rest of his command as follows: A regiment and one battalion of infantry, a squadron of cavalry, a platoon of artillery, half of a company of engineers, and half of a company of the

hospital corps to each of two columns, one to advance via Holbrook Road, the other via Cedar Creek, Forestdale and Pinedale.

Wagon trains would remain at Apache, and pack trains accompany commands to which assigned.

2d. Orders to be Issued by the Brigade Commander.

FIRST BRIGADE, FIRST DIVISION, FIRST (BLUE) ARMY CORPS.

FORT APACHE, ARIZONA TER., 1-27-'98, 7:00 P. M.
Commanding Officer, First Infantry:

SIR :

I. The enemy is advancing southward in two columns. One (the western) started at — (hour) on — (date) from Winslow in the direction of Heber. It may approach this post from a northwesterly direction or proceed via Pinedale to a junction with the other (the eastern) column, which left Holbrook at — (hour) on — (date) and is following the Holbrook-Apache Road.

II. The brigade will start to-morrow on an armed reconnaissance of the enemy.

III. (a) It will proceed in two columns. The eastern column will proceed via the Apache-Holbrook Road, and reconnoiter the eastern column of the enemy. The western column will proceed via Cedar Creek, Forestdale and Pinedale and reconnoiter the western column of the enemy.

(b) You are assigned command of the western column, which will consist of your regiment and the following detachments, which have been directed to report to you, viz.: one battalion of infantry, one squadron of cavalry, one platoon of artillery, a half company of engineers, and a half company of the hospital corps.

(c) You will start to-morrow at 8 o'clock A. M. and establish and maintain connection during the movement with our eastern column.

If the western column of the enemy continues a direct advance upon this post, retire in its front and delay its progress. If it turns eastward, retire in that direction, observing the enemy, and report with your command to me.

(d) It is important that you keep me continually informed of the position and movements of yourself and the enemy.

IV. Wagon trains and heavy baggage will be left at this post. Pack trains will accompany commands to which assigned.

V. I will accompany the main body of the eastern column.

Very respectfully,

Brigadier General, etc., Commanding.

Sent by Orderly.

Note:—The order issued to the commanding officer of the Second Infantry, commanding the eastern column, would be very similar to the above, with the exception that the last paragraph of section *c* and section *d* would not be included in his order.

Same date, 5:00 P. M.

Commanding Officer, Third Infantry:

SIR:—The commanding general directs that you detail one battalion of your regiment as a guard for the dépôt of supplies, post and wagon trains, which will be left here until further orders; that you have another battalion report to Colonel A, and that with the remaining one you report for duty to Colonel B.

Very respectfully,

Assistant Adjutant General.

Commanding Officer, Fourth Cavalry.

SIR:—The commanding general directs that you have one squadron of your regiment report to Colonel B, and that with the remaining one you report for duty to Colonel A.

Very respectfully,

Assistant Adjutant General.

Commanding Officer, Light Battery A, Fourth Artillery.

SIR:—The commanding general directs that you have one platoon of your battery report to Colonel A, and with the remaining one you report for duty to Colonel B.

Very respectfully, etc.

Note:—Similar letters to the commanding officers of Company A, corps of engineers, and Company B, hospital corps, requiring them to send a half company each to report to Colonel A, and with the remaining half to report for duty to Colonel B.

The orders contained in the above letters could, with perfect propriety, be given verbally to the persons concerned by the brigade commander, and, in fact, would most frequently be given that way.

SPECIAL ORDERS, }
No. — }

Same date, 5 P. M.

With the exception of that battalion of the Third Infantry which is detailed as a guard for the dépôt of supplies, for the post and wagon trains, this command will at once draw and prepare for transportation by packs, ten days' rations and forage, and two hundred rounds of ammunition per field piece, rifle and carbine, and one hundred rounds per pistol.

By command of, etc.

Assistant Adjutant General.

3d. *Models of Orders by Column Commanders.*

WESTERN COLUMN, FIRST BRIGADE, FIRST DIVISION, FIRST ARMY CORPS.

FORT APACHE, ARIZONA TER., 1-27-98, 8 P. M.

DETACHMENT ORDERS, }
No. I. }

*Distribution of
Troops.*
Advance Cavalry:
(Major X)
1 squadron 4th Cav.,
less 1 troop.
Advance Guard:
(Major Y)
2½ platoons of cav-
alry;
1 battalion, Third
Infantry.
½ company of Engi-
neers.
1 detachment Hos-
pital Corps.

I. The enemy is advancing southward in two columns. One started at — (hour) on — (date) from Winslow in the direction of Heber. The other column left Holbrook at — (hour) on — (date) and is following the Holbrook-Apache Road.

The brigade divided into two columns, will start to-morrow on an armed reconnaissance of the enemy. The eastern column will proceed via the Apache-Holbrook Road to reconnoiter the eastern column of the enemy.

II. This (western) column will reconnoiter the western column of the enemy.

Main body in order
of march :
Commanding offi-
cer and staff.

$\frac{1}{2}$ platoon of cav-
alry.

1 battalion First In-
fantry.

Platoon of artillery.

2 battalions First In-
fantry, less one
company.

$\frac{1}{2}$ company Hos-
pital Corps, less
one detachment.

Rear Guard : (Cap-
tain Z)

1 platoon of cavalry.
1 company, First In-
fantry.

III. (a) The advance cavalry will
move at 7:30 A. M. and, proceeding via
Cedar Creek, Forestdale and Pinedale,
will find the enemy and screen our
march.

(b) The rest of the column will as-
semble at the bridge over White River,
at 8 A. M., and the advance-guard will
immediately proceed and follow the
advance cavalry. The commander of
the advance-guard will detach suffi-
cient cavalry to establish and maintain
connection with the eastern column
during the movement.

(c) The main body will follow at
1,000 yards.

(d) The rear-guard will accompany
the pack trains and follow closely.

IV. Wagon trains and heavy bag-
gage will be left at this post.

V. I will be with the main body.

A,
Colonel First Infantry, Commanding.

Copy by orderly to regimental,
battalion, squadron, battery, ad-
vance and rear guard commanders.

4th. Models of Advance-Guard Orders.

FORT APACHE, ARIZONA TER., 1-27-98, 9 P. M.

ADVANCE GUARD ORDERS }

NO. 1. }

Distribution of Troops and Order of March:

I. Van Guard:
 $\frac{1}{2}$ platoon Fourth
Cavalry.
2 companies Third
Infantry.
 $\frac{1}{2}$ company Engi-
neer Corps.

I. Same as 1 of preceding order,
and add: Our column will reconnoiter
the western column of the enemy.

II. The advance-guard will proceed
on this duty to-morrow.

III. (a) The vanguard will leave
at 8 A. M. and follow the trail of the
advance cavalry.

II. Reserves:
2 companies, Third
Infantry.
1 detachment Hos-
pital Corps.

III. Connecting
Patrols on Right
Flank:
2 platoons, Fourth
Cavalry.

(b) The reserve will follow at a dis-
tance of 1,000 yards.

(c) The ranking officer of cavalry,
with two platoons, performing the
duties of connecting patrols, will estab-
lish and maintain connection with the
eastern column during the movement.

IV. The commanding officer will
be with the vanguard.

Y,

Major Third Infantry, Commanding.

Communicated verbally to com-
manding officers of all subdivisions
and to all cavalry officers.

Note.—Similar orders would be issued in the eastern
column.

FIVE YEARS A DRAGOON ('49 TO '54) AND OTHER ADVENTURES ON THE GREAT PLAINS.

PART V.

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AND now the Kansas War was on. I was acting post wagonmaster at Fort Leavenworth, when one night in May, about 10 o'clock, Lieutenant J. E. B. Stuart, regimental quartermaster, First Cavalry, rode in with a requisition for forage and rations for Colonel Sumner's command, camped southwest of Westport, Missouri. He had ridden from there, thirty-four miles, since noon. The command would be out of forage and provisions the next day, and the order was to have the supplies there in time for issue the day after. I was instructed to have teams in from the nearest train, camped nine miles south, as early as possible. I sent word to the watchman at the stable to bring my horse and wake me at 2 o'clock, which he did.

At 3:30 in the morning I was in nine-mile camp, breakfasted and started back at 4:30 and before 7 we were loading at the forage yard and commissary. At 9 o'clock the train started down the road. We arrived at nine-mile camp, fed and watered the mules, and lunched, and at 1:30 were on the road again. I did not expect to go any further, but Stuart came along just then and said the quartermaster had left it with him, and he wanted me to stay with him all the way through, which I did. The roads were exceedingly bad the last few miles before reaching the ferry, and it was dark when we got the last wagon over the Kaw. The way to Colonel Sumner's camp was over a crooked road little traveled, much of the way through timber and mud holes, with no bridges over creeks and deep gullies. Fortu-

nately, the moon gave a dim light. Several wagons were upset, several trees had to be cut down where the road was too narrow and crooked, and in many places limbs must be cut to give room for wagons to pass. In short, at 1 A. M.,

after the most incessant toil, we camped near Colonel Sumner's command. I rode with Stuart to headquarters, where he reported his arrival with train and supplies. He loaned me a pair of blankets, and we both lay down in his tent for a nap. I was nearly worn out. Stuart had been a quiet witness of a very hard struggle, and but for his piloting we should not have gotten there that night, for he was the only one of the party who had been over the road.



GENERAL J. E. B. STUART.*

At sunrise I started for my camp about two miles out and overtook Lieutenant Ransom, late General Ransom of the Confederate Army, and said "Good morning," calling his name. He looked at me very sharply and returned my greeting pleasantly enough, but I thought coolly, as we were on the best

*James E. B. Stuart was born in Virginia and graduated from the Military Academy at West Point in 1854. He was then promoted brevet second lieutenant of United States Mounted Riflemen and reported to his regiment in Texas. In March 1855 he was promoted second lieutenant of the First United States Cavalry (now the Fourth), and served as quartermaster of that regiment from July 1855 until May 1857. He became first lieutenant of the First Cavalry in December 1855, and captain in April 1861.

In May 1861 he resigned and accepted a commission in the Confederate service as lieutenant-colonel of a Virginia regiment. His promotion in the Confederate army was rapid, and he was a lieutenant-general commanding

of terms. I asked where he was going so early, and he said "To Fort Leavenworth." I replied that I was going there too. Just then we crossed a clear stream of water, I dismounted, dropped my horse's rein, and remarked that I would bathe a little and overtake him. He looked askance at me and turned off to ride up to a group of officers' tents on the hill near by. In a clump of willows I took a pretty good bath, wiped myself with a towel that I carried in my holster, combed my hair and whiskers with my fingers, and went on to the group of tents where Ransom had stopped. With him were several officers in front of a tent, seemingly paying considerable attention to me. As I rode up they all laughed heartily. The joke seemed to be on Ransom. He said that he had no idea who I was, but that I was the hardest looking man he ever saw. I was haggard and weary from want of sleep, my hands and face were black with dust and mud, my clothes muddy from head to foot, and my horse and equipment no better. Ransom's description of me was weird indeed, and he declared that he was afraid to ride with me. He had started without arms, and called on Lieutenant Johnson to borrow a pistol. Now that I was cleaned up a little they all knew me. At my camp we got some breakfast and rode to Fort Leavenworth, where we arrived about 2 o'clock. I was as good as new the next day.

Things kept getting worse in Kansas; marching columns and guerrilla bands of both parties (Pro-Slavery and Free State) were moving about all along the border. Outrages were committed by both parties, but the worst feature of the warfare was the raids on homes, ostensibly for political reasons, really very often for robbery and plunder. It

the cavalry of General Lee's army when he received his mortal wound at Yellow Tavern. He died May 12, 1864.

Stuart saw varied and active service during the time that he was a lieutenant in the First United States Cavalry. He was in several expeditions and combats with various Indian tribes, and was severely wounded in a fight with the Cheyennes in 1857. He took an active part in the Kansas disturbances of the fifties, and was in Colonel Albert Sidney Johnston's Utah Expedition in 1858. He was at home on leave of absence in 1859, and accompanied Colonel Robert E. Lee as a volunteer aide-de-camp in the expedition to suppress John Brown's Raid.

seemed necessary to keep United States troops in camps and on the move as protection to good citizens of both parties and to keep the threatening columns apart. United States troops were stationed near Westport, Franklin, Prairie or Baldwin City, Lecompton, etc. These camps were headquarters from which troops could move quickly when necessary, and must be supplied every ten days with forage and provisions. Something like 100 wagons were required for that purpose, and I was detailed by the quartermaster, Major Sibley, to look after them. Most of the supplies went by Lawrence, crossing the ferry there, when the wagons for Franklin were sent off under an assistant wagonmaster, those for Baldwin City under another, and those for Lecompton, the largest command, under another, etc.

After crossing at Lawrence I generally went on to Lecompton, ten miles, and after finishing there, rode across country to other camps if necessary, returning to Lawrence about the time the wagons from different points reached there, and then to Fort Leavenworth for another ten days' supply. While the teams were not overworked, I was very much so. I never worked so hard and so continuously from May to October as I did this season; five months of exposure and overwork, which would have ruined any man of weak constitution; and it nearly ruined me.

The last trip I started on was with a train of supplies for some troops opposite Topeka. Having delivered them I was to ride across to Lecompton and then to Lawrence. The train under Mr. Beery started early, but I did not get off until afternoon. I was ill enough to be in bed, but said nothing of it. I rode alone, and was so sick that I could scarcely sit my horse, and afraid to dismount lest I could not mount again. In this condition I arrived at a house on Stranger Creek, east of the crossing near Easton. I did not know the people, but dismounted, staggered into the house, and was unconscious. About 8 o'clock the next morning I opened my eyes and recognized the woman standing over me bathing my temples and forehead as the one I had seen when I dismounted. I felt a little light headed, but my

mind was clear. I imagined, however, that I had been there three days, from Tuesday to Friday.

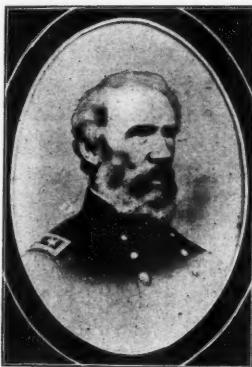
The supplies in the train were for two commands some distance apart, and I had the papers, invoices, number of wagons to go to each place, the contents of each wagon, etc. The wagonmaster knew nothing about the distribution of goods, and, if this was Friday, they were a day behind and there would be confusion. However, I soon learned that my idea of the time I had been there was but a delirium, and this was Wednesday morning.

I had been there from 5 o'clock Tuesday to 8 o'clock Wednesday. This good woman had watched over me all night. Mr. and Mrs. Martin Hefferlin were the people, and I might have died but for their kindness. My fever lasted nearly all night, during which I was quite violent, requiring close attention; and now I was nearly helpless, but my mind was clear. I inquired what time the stage for Fort Riley would pass, and Mrs. Hefferlin said in about an hour. I bundled up my

papers and memorandum book, wrote a short explanation and gave it to the stage driver, whom I happened to know, and who promised to give them to the wagonmaster. I found I could not ride, and returned to the fort with Lieutenant Buford (afterwards General Buford) who was en route

* Edwin Vose Sumner was born in Boston in 1797, and educated at Milton Academy. He was appointed second lieutenant of the Second Infantry in March 1819, became first lieutenant in 1823, and was promoted to captain First Dragoons (now First Cavalry) at the organization of that regiment in March 1833. In 1846 he was promoted major Second Dragoons (now Second Cavalry), and in 1848 lieutenant-colonel First Dragoons; and when the First Cavalry (now the Fourth) was created in 1855, he was appointed its colonel. He was appointed brigadier-general in March, 1861, and major-general of volunteers in June of the same year. He died in March, 1863.

General Sumner had his share of wars. He distinguished himself in the Black Hawk War, and took part in numerous expeditions against Indians. He participated in every engagement of General Scott's army in its advance



GEN. EDWIN VOSE SUMNER.*

from Fort Riley in an ambulance. For two weeks I alternately shook with chills and burned with fever, but finally pulled out.

The incidents of this summer's work were numerous, but would be mostly uninteresting now. The history of the Kansas War has been written by many able pens, some truthful and some garbled and exaggerated. My part in it was that of an humble employé of the government. It was not my right or privilege to carry the news from Lawrence, the Free State headquarters to Leavenworth, the Pro-Slavery headquarters, nor vice versa. Of course a great deal came under my observation that might have been useful to either party, but my life was at stake every day if I became a news-bearer in either direction. Both parties contained zealots and enthusiasts who would hesitate at nothing to crown themselves with glory by killing some one on the other side. Most of the men on either side were merely struggling for a principle—whether Kansas should be a free or a slave State—whether they should build homes, as most of them wanted to, in a free or a slave State; and most of both parties were honest, and willing to abide the result of a fair vote; but neither could shake off the element that joined for adventure, for revenge, for robbery, for murder; and that element was a curse to both parties.

I was present at Lecompton when the compromise was effected, and both parties settled down to peace in the fall of 1856. Pro-Slavery and Free State agreed to keep the peace and frown down every disturbing element. Captain Sam Walker was placed in command of a company of Free State men, and Captain John Wallace in command of a com-

from Vera Cruz to the City of Mexico, was wounded while leading a cavalry charge at Cerro Gordo, and for gallantry in holding back 5,000 Mexican lancers at Molino del Rey, was brevetted colonel.

In the Civil War he commanded the First Corps of the Army of the Potomac, and was in about all the battles that army engaged in, till General Hooker was placed in command of it. Thereupon he asked to be relieved and was ordered to command the Department of Missouri, but he died suddenly while on his way to his station.

He was twice wounded in the Seven Days' Battles before Richmond, and received his fourth battle-wound at Antietam.

pany composed of the best element of the Pro-Slavery party—all pledged to act together for the common good and the peace and prosperity of the Territory. Homes became safe, murder and arson were unpopular.

One lovely Sabbath, while encamped near Lecompton, I saw half a dozen houses burning—all belonging to Free State people, who were afraid to remain at home and were at Lawrence. Colonel Cook entrusted to my care a Free State minister who had been captured by the Pro-Slavery party, and whose home was near Leavenworth, and requested me to see that he got home to his family. He was the Rev. J. H. Byrd. I kept him concealed in a wagon, and he got home safely, was in charge of the government farm at Fort Leavenworth during the Civil War, and died on his farm near Lawrence in September, 1897.

On the same trip, while crossing teams at Lawrence, a man of good address and the appearance of a gentleman, asked me if he could ride in one of my wagons to Leavenworth. He was about thirty years old, said he had a family in Ohio, had been looking over the country, and now wanted to go to Leavenworth and take boat for St. Louis and home. I told him he could go with me, and pointed to a wagon in which he might ride. A citizen sentinel pacing up and down the river bank with a Sharp's rifle on his shoulder said, that by General Lane's order no one was allowed to leave Lawrence, hence this man could not go. The officer in charge of the guard was called and the man remonstrated, said he had nothing to do with defending Lawrence from an attack which was expected, that he was a citizen of Ohio and was traveling through Kansas, as any free citizen of the United States had a right to do, and did not want to be drawn into the Kansas War—he would leave the Territory as quickly as he could get a boat at Leavenworth. But the guard said, "No," in a way that aroused the man's anger. Turning to me he said, "I wish I had a good gun or pistol, I believe I would just back on to that boat and see what they would do." I told him to get into the wagon—it would not wait for him—which he did, and the boat was shoved off. The man in charge turned angrily to me and said he would

report this to General Lane.. I said: "I do not think you need trouble yourself—General Lane doesn't care anything about me—in fact, he doesn't know me." Some gentleman called to him, they talked a while and I heard no more of it. I fed Mr. Byrd and my new passenger as well as I could from my mess and landed them safely, for which they were very thankful.

The ferry at Lawrence was a flat-boat run by pulleys on a rope stretched across the river and fastened to a tree on either side and propelled by the force of the current. The boat was not large enough to hold a wagon and six mules, so the leaders were detached from the team and led around to a shallow ford higher up stream, where one might cross on horseback or with loose animals, but could not cross wagons. A Frenchman, married to a Delaware woman and living with the Delaware Indians on the north side of the river, built a boat and stretched a rope; and when I came along one day he met me two miles north of the ferry and wanted me to cross some of my wagons on his boat. I galloped on and found that he had made a good road and had a good boat that would carry a wagon and six-mule team, with room to spare; so I divided the train, going to the new ferry, about forty rods below the old one, myself with Mr. Lanter, an assistant wagonmaster, while Mr. Beery went to the old ferry. Just as the first wagon got on the ferry, I noticed that the old boat was on the south side and Beery was calling the ferryman. As we were about shoving off, the man who ran the old ferry called to me not to attempt to cross wagons on that (the new) ferry; if I did, he would cut the rope and send me down the river; and suiting the action to the word, he caught up an ax and started at a run for the big cottonwood tree where the rope was fastened. We were now in the stream and rapidly nearing the south bank. Standing on the front of the boat with pistol ready, I warned him to stop, and that if he attempted to cut the rope, I would surely kill him.

The boat landed and he stopped within ten feet of the tree. I ordered him back to his boat, at the same time asking him what he meant. He declared that the Frenchman

had no charter to run a boat, hence, no right, while he had a charter from the Territorial Legislature for fifteen years. On the other hand, the Frenchman claimed that the Dela-



MAJOR-GENERAL JOHN BUFORD.*

wares owned the land on the north side, and had just as much right to land on the south side without any charter as the other fellow had to land on the Delaware reservation,

*John Buford was born March 4, 1826, in Kentucky, and graduated from the Military Academy at West Point in 1848. He was then promoted brevet second lieutenant of the First Dragoons, and the next year second lieutenant of the Second Dragoons. In 1853 he became first lieutenant, and in 1859 cap-

over which he claimed that the Legislature had no jurisdiction. I ended the controversy by telling the Frenchman to cross all the wagons he could, and that I would protect him. I told the old ferryman to get his boat in motion quickly or I would run it with my men, and that the ferry which crossed the most wagons would get the most money. As to their quarrel, they could settle that before the courts or any other place—I knew nothing, nor did I care anything about their rights or the law; here were two ferries, and I was going to use them. I had the teamster of the first wagon drive close to the tree and told him to shoot any one attempting to approach it; and he, that same gentle, quiet, nervy "Bill" Curran, would have done it if necessary. Then I got aboard the old ferry and gave the ferryman one more chance to run his own boat, and just as I was about to let go, he and his man jumped on. He was sulky and threatened to report me to Colonel Cook at Lecompton. I cut him off short with the answer, that I did not care a — what he did, so that he lost no time with the ferry; and I told Beery to push things with the new ferry, while I stayed with the old one. All worked with a will, but the old ferry lost two

tain of the same regiment. In 1861 he was appointed major in the Inspector General's Department, brigadier-general of Volunteers in 1862, and major-general of Volunteers on the 16th December, 1863. He died in Washington a few minutes after his major-general's commission was placed in his hand.

There are no names upon its honor-roll in which the American cavalry feel a keener and a juster pride than in that of General Buford. He was an example to emulate from the beginning to the end of his brilliant but too short career. He died at the age of thirty-seven.

From the date of his graduation until the outbreak of the Civil War he was constantly and actively engaged with his regiment on the Western frontier in various Indian wars, the Kansas disturbances, and the Utah expedition. As an inspector he remained on duty about the defenses of Washington during the first year of the war, but was then assigned to the duty his active spirit yearned for—the command of cavalry in campaign. He was severely wounded at the second battle of Bull Run, but in less than a month was back on duty as chief of cavalry in the Army of the Potomac in the Maryland campaign. A history of this cavalry is a history of Buford from the time he joined it till he was borne away from it to die of a brief illness.

Buford chose the field for the battle of Gettysburg, and with his cavalry division held back Heth's Confederate infantry division until General Reynolds arrived with his corps. The Union owes to him, more than to any other man, its victory at Gettysburg.

trips to start with, and in the end the new ferry had six wagons the most. All, more than seventy wagons, were crossed in time to camp south of town before dark, whereas without the new ferry half of them would have camped in the bottom north of the river.

The next day, after finishing my business at the camp at Lecompton, I called at Colonel Cook's headquarters, as I always did before leaving his camp, and there was the complaining ferryman. Having finished his business with me, the Colonel said that Mr. _____ had made serious charges against me. I asked what they were, and the Colonel told the man to state his case in my presence. He did so with a good deal of feeling, but substantially correct, and I so admitted. "Well, what did you do it for?" asked the Colonel severely. I then stated that being in charge of a train-load of supplies for troops in the field, some of whose rations and forage would be exhausted the next day, I came to a river where I had been in the habit of using the ferry, and found another one complete and ready for use. Knowing nothing of any one's rights, and caring for nothing but to use all the means within my reach to get across with the least delay, I had used both ferries, and in doing so was obliged to treat Mr. _____ very harshly; and if he thought I would permit him to cut the ferry-rope and send me sailing down the Kaw River he was much mistaken; and if he ever attempted it again, he would fare worse. "Well, what have you to say to that?" asked the Colonel, turning to the ferryman. The man bristled a little in a loud voice, when the Colonel said, "Stop, sir, stop! You are a — fool, and I will give you this advice: never try such a thing again on a good soldier. Mr. Lowe seems to know how to move trains to supply troops in the field—that is what he is employed for." The man left, and the Colonel remarked that he did not think I would have any more trouble with that fellow; to which I replied that I did not think he would "balk" again. This made the Colonel smile, and "balk" became a by-word among the officers, applied to any one who failed to move freely when told to do anything.

I crossed many times afterwards, and each ferry worked its best for the most money. The Frenchman generally captured the best of it by two or three wagons. The Frenchman kept the approach to his ferry in perfect shape, so that there would be no delays, and the old ferryman kept up the competition—result, a great saving in time and talk.

I saw John Brown but once. He came walking into Lawrence, looking like a shaggy lunatic. The class of people who shouted for "Captain John Brown" were the negative characters, always ready to be mixed up with any kind of notoriety, though not amounting to anything themselves. The substantial, thinking portion of the populace looked on, shook their heads, and, if they expressed themselves at all, it was an expression of contempt for that class of people. Brown was no hero among them, but was looked upon as a disturbing element. I never expected him to gain any respectable notoriety, and he did not in the Kansas War; and if he had not made the Harper's Ferry raid and been executed therefor, he would soon have been forgotten, or remembered only for his crimes. I do not know of one generous, manly, high-minded act that he did in Kansas, nor one for which he deserved honorable remembrance. On the other hand, his ranting lunacy and bad advice caused many murders on both sides. He was so wrapped up in the idea of the freedom of the slaves, that with others of like ilk he did not hesitate to steal negroes from their masters in Missouri, and this always justified him in stealing provisions for them to subsist upon, and transportation to carry them off. Many poor "darkies" were taken from homes against their better judgment through the persuasion and semi-coercion of the disturbing element who came to Kansas in the name of freedom, and made themselves notorious as border robbers and thieves. This element, with that which came from Missouri to carry the elections and override the will of the genuine settlers, together with the political adventurers, caused all the trouble. No better people ever settled a State than those who came to Kansas to make homes.

A young man, well dressed and well mounted, rode one evening into my camp west of Little Stranger Creek, and told me of a terrible battle that had been fought between Big Stranger and the home of Tonganoxie, a Delaware chief, about half-way between Leavenworth and Lawrence. Though he was not a participant in the battle, he thought his information correct. He said I should find dead men scattered about in considerable numbers; that the Free State and Pro-Slavery forces had met there, etc. A few words about this young man. He took supper with me, fed his horse and slept in my tent, and after breakfast left for Leavenworth, promising to take my advice and leave Kansas, which he did; but after peace was declared he returned, went to Denver and Montana, came back, drifted into the cattle business, became a millionaire, raised a prominent family of worthy people, and died in Kansas City a few years ago. He was always thankful that he had kept away from Captain Miller's band of "peace makers," allied himself with good men and led a good life.

The next morning at a point two miles east of Tonganoxie's house, at a place now called Moore's Summit, after the Hon. Crawford Moore who owned a large tract of land there, I found lying in the road a dead man, about thirty years old, dressed like a respectable mechanic. He lay upon his back, pockets turned out as if he had been robbed, a small bunch of keys near his trousers pocket. He had been shot twice, the last time evidently after he fell, in the top of his head. Evidently a number of horses and men had been there, but after riding in a circle a long distance round, I failed to find another body. Captain Sacket came along and had the body buried. I related the circumstance of finding the dead man, as I went through Lawrence, but no one knew who it was.

On my return a man met me at the ferry on the Lawrence side, G. W. H. Golding by name, and stated that he and three others, Roberts, Zimmerman and Brown (not John) had been driven out of Leavenworth on account of their open confession that they wanted Kansas to be a free State. Golding was a gunsmith, Roberts a carpenter, Brown

and Zimmerman other trades. All had worked at their respective trades and had not been mixed up in any difficulties. They had been notified to leave, and had started to walk to Lawrence. When near Tonganoxie's house, a mounted company of fifty or more men made them prisoners. They told their story and were damned as Abolitionists. Everybody who wanted to live in a free State and wanted Kansas to be a free State for that reason, was denounced as an Abolitionist and a dangerous character. The percentage of Abolitionists among the Free State men was very small. The sentiment of nearly all men from Northern States and many from Missouri and other Southern States, was in favor of making Kansas a free State. They did not care to meddle with slavery where it existed, but wanted the new State free, where they hoped to make homes, because they believed it best for themselves and families. I met men from Kentucky, Georgia, Virginia and Maryland who wanted Kansas to be free, and they were among the best settlers.

The captain of the troop of rangers who captured these men did not want to be encumbered with them, and concluded to leave them at Tonganoxie's house under guard, and four men volunteered to guard them. Tonganoxie had gone off, as many others had, to remain away until the troubles were settled. These four guards with their prisoners took possession of the house. About midnight they started under pretence of taking the prisoners back to Leavenworth, but really to find an excuse for murdering and robbing them. The prisoners were required to walk, one on the right side of each of these mounted men, and at a signal all were shot at. Golding was shot near the left ear, the bullet ranging downward. He fell and bled profusely, but lay quiet, nearly choking to death with blood, for fear they would shoot him again. The ruffians felt his pulse and one was about to shoot him again, when another said, "Don't waste your shots; no man ever bled that much and lived." Roberts struggled some and was shot again. Brown lay still; they felt his pulse and pounded him on the head with the butt of a gun. Zimmerman was pronounced dead. All were robbed (they had considerable money), the robbers

riding off at a gallop. Golding supposed his companions dead, turned over and relieved himself of the blood in his throat, found that he could walk, and finally made his way through the prairie and timber, keeping off the road, and got to Lawrence. Hearing that I had found Roberts and no others, made him hope that Brown and Zimmerman might have escaped as he did. It turned out that Brown was not hit by the shot, but fell and lay still, even holding his breath a long time, and the only injury was caused by the blows on the back of his head. He, too, thought his comrades dead and crept away; but he found that the blows on his head had so affected his eyes that he could scarcely see. In this condition he made his way to the Kaw River, living on green corn for several days, until he was found below Lawrence. I do not know what became of him. Zimmerman escaped badly wounded, but recovered. Golding was the first Free State sheriff of Leavenworth County, and was a useful citizen and good officer. He settled in Labette County and died there in 1895. The above is all there was of the terrible battle described by my friend.

To show the character of the four men who committed this outrage, I happened to know one of them personally, and I suppose the others were of like makeup. This one had been a trapper up the Yellowstone, committed one or two murders up there, and had to get out of the country to keep from being killed by other trappers. I hired him to go to Fort Riley in 1855 and discharged him on the road. He returned to Leavenworth and opened up a headquarters for toughs, his apparent business being that of a saloon keeper. Many men told me that it was only a question of time when he would kill me, if he got a chance. Everybody went armed, and, of course, I was not behind others in having good arms and being prepared to use them. One thing I was pretty safe on, I did not visit the town or tough places at night, and never feared that any man would assassinate me face to face. He might waylay me, but that was hard to do in broad daylight, with a man who was always sober and accustomed to care for himself. But his threats caused me to keep the run of him. One day I met him at the corner of

Main and Shawnee Streets; I was going north, as he came round the corner and turned south with a rifle on his shoulder. I stepped to the edge of the walk, drew my pistol quickly and motioned him to continue on south, which he did. Neither spoke. When he got to Delaware Street, he turned west, and I went on north to where my horse was hitched and rode to the Fort. I never saw him afterwards, but heard the next day that he had joined one of the companies of "peace makers."

In the fall, soon after peace arrangements at Lecompton, which destroyed all the business of irresponsible "peace makers," a promiscuous lot of men were assembled in a saloon in Leavenworth, some drinking, some playing cards, talking over the past, conjecturing the future, etc. My "friend" was of the number—swaggering, swearing and bragging—telling of his prowess, and among other outrages he bragged of killing Roberts. "I did not let my man escape," said he. Some Georgians present had come to Kansas to settle, not to steal or rob, but to settle—preferably to make Kansas a slave State, but to settle any way and make the best of it. In the meantime some of them had become so disgusted with the so-called "Pro-Slavery" gangs, as represented by the "peace makers" above referred to and the crowds that came over from Missouri to carry the elections, that they leaned towards the Free State party as representing the better element, and finally some of them concluded to and did act with that party. One of these Georgians, who had been much disappointed and disgusted, now slightly under the influence of liquor, sprang to his feet, rifle in hand, faced the big ruffian and spoke, as reported to me, about as follows: "You scoundrel! you thief! you characterless murderer! You who had nothing at stake, neither character, home, friends, nor hope for the future, you and others like you have roamed this country to our disgrace and the destruction of all that we hoped to build. By murder, arson and robbery you have made us a stench in the nostrils of all decent men. I am going back to Georgia, but for the sake of my comrades who must stay here and struggle for a liv-

ing, I am going to kill you, so die, damn you, die!" And he shot the ruffian dead.

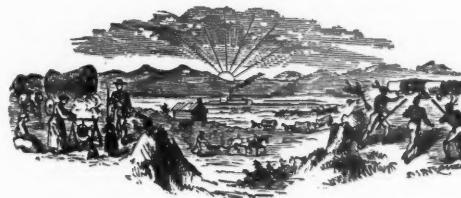
During the Georgian's speech the ruffian had braced himself up, fumbled his pistol and acted as if he was going to use it, but the Georgian had the "drop" and would have killed him any instant that he thought it necessary. A friend of mine who was present told me this two hours after in my camp fifteen miles away, and of the scenes and incidents previous to and following the killing. The Georgian's speech caused a sensation, not only among the tough element, who thinned out a good deal afterwards, but among the better element who had looked with suspicion upon all Southerners who came to make Kansas a slave State. Gradually it dawned upon them that there were good men of the Pro Slavery party who would fall into line and work for Kansas any way, build homes and be good citizens. But the Georgian who did the killing did not return home, but found government employment, went with me on the Cheyenne Expedition in 1857, to Utah in 1858, where I left him, and thence to California. Frugal, industrious and honest, he made all good men respect him. Two of the other Georgians who were in the room when the killing was done, worked for me in government business more than two years, saved their money, and made homes in Kansas. Better men it would be hard to find.

At Lawrence, one of my first acquaintances was Lyman Allen. He was in the stove and hardware business, a genial, companionable man. After crossing the ferries, I always went to his office to write my certificate on which the ferry-men collected their pay from the quartermaster at Fort Leavenworth. So that every time I passed through there, going or coming, I saw him. A few days after peace was patched up at Lecompton, I met Governor Charles Robinson in Allen's office. I had seen him frequently as a prisoner at Colonel Cook's camp at Lecompton, but now made his acquaintance for the first time. Having some leisure, and the Governor seeming to want to talk with me, I remained in conversation with him and Mr. Allen until two distinguished leaders of the Pro-Slavery party came in and introduced themselves to

the Governor, who introduced them to Mr. Allen and me. They talked a little, evidently without any very congenial feeling on either side, and treated each other courteously for a few minutes, when the visitors rose to go. After shaking hands reservedly all around, one of them turned to the Governor and said that he had lost a negro man, and had reason to believe he was in Lawrence—he had the man in camp during the campaign and some one had stolen him. He asked the Governor if he had heard of such a man, describing him, to which the Governor replied that he had not. The other man said: "Well, if the nigger does come under your notice, I wish you would try to save him for me," to which the Governor replied: "Well, if I see him." And the gentlemen were off. After they went out the Governor turned to me and said, that he had been informed that each of these two men had declared that they would shoot him on sight, "And now," said he, "they come in here to inquire after a runaway negro, and while both are armed and I am not, neither acts as if inclined to shoot." These men, then young, were among the wealthiest in Platte and Buchanan Counties, in Missouri; both were Union men during the War of the Rebellion, one was a colonel, several terms a congressman, and died a congressman from the St. Joe district in Missouri—one of the ablest men from that or any other State. And so the change referred to by Governor Robinson was not so great, in the light of what followed. When Robinson became governor he made his friend Lyman Allen Adjutant General of the State.

Lieutenant Stuart, acting commissary officer at Fort Leavenworth, found himself with 400 work oxen on hand in the fall of 1856, turned over to him by the quartermaster to be fed for beef. He employed me to take them to Platte County, locate them, buy feed for them, etc., and I was transferred to the commissary department for that purpose. I placed them on the farm of Mr. Daniel Carey, near which I had been the winter before. In the spring of 1857 the oxen were very fat. I had spent a pleasant winter with nice people, and the last of April I returned the cattle to Salt Creek Valley, transferred back to the quartermaster's depart-

ment, and began fitting up trains for the Cheyenne expedition to be commanded by Colonel E. V. Sumner, First (now Fourth) Cavalry, with Lieutenant J. E. B. Stuart, acting quartermaster and commissary of the expedition. Of this campaign, in which I was master of transportation, I will tell in my next paper, so far as it came under my observation.



THE ORGANIZATION OF A SCOUT AND SHARPSHOOTER CORPS.

BY CAPTAIN ALONZO GRAY, FOURTEENTH CAVALRY.

FOREIGN armies, to a much greater extent than the American, have organized special corps, which are valuable only in time of war or public danger, or in extended maneuvers. I do not know of any corps organized for the combined purposes indicated in the above heading.

Our army had, and still has, many scout organizations, whose members have no shooting qualifications. During the War of the Rebellion, it had many sharpshooters, without reference to their scouting qualities. It also had individual scouts who were fine shots.

It would seem that a corps organized and trained in time of peace, which combines both of these qualities, would be especially valuable in time of war.

ORGANIZATION.

I would organize this corps into twelve companies of fifty men each, exclusive of commissioned officers. As seldom more than one company would operate together, the battalion organization might be omitted. I would, however, have three majors who would act as chiefs of districts in which three or more companies of scouts might be operating. A colonel and staff should also be appointed, who should look after the equipment and supply. The company officers should be chosen with reference to their abilities, being young enough to be energetic and active, and yet old enough to have some experience; and they should be able to impart the necessary instruction.

The enlisted men before joining this corps should have

the necessary disciplinary training, preferably two years in the line. They must be good horsemen, and for that reason would mostly, but not necessarily, come from the cavalry service. The men should first have the disciplinary training, because, in this corps, discipline would be enforced, but not taught.

On many cattle ranches a discipline sufficiently rigid is enforced, so that many recruits might be drawn from this source.

All men transferred to this corps should have attained the sharpshooter's grade before being transferred, unless they possessed some special qualification. In this case, they might be let in with the marksman's grade. In no case should a poor shot be allowed in the corps, no matter what his other qualifications were. Some system of examination should be pursued to ascertain a man's qualifications. The candidate should be able to read and write fluently, but, as many men could not do themselves justice by a written examination, an oral examination is all that should be required. No maximum age-limit should be set so long as a man preserved his acute mental faculties. Age usually brings experience.

This organization would differ from the Philippine Scouts in that it would not be intended for garrison purposes. The companies might be allotted to different departments, and, if necessary, temporarily broken up but not disorganized.

PAY.

As the members of the corps would require special qualifications, the pay should be larger than the pay of corresponding grades in the line. Privates should get \$18.00; corporals, \$20.00; sergeants, \$25.00; first sergeants, \$30.00; and in addition to this, the usual increase for length of service, and for foreign service. This increase of pay would be an additional incentive to men of high qualifications to join the corps. The principal inducement, however, would be the love of adventure which pervades the entire nation.

UNIFORMS.

This corps should have a special uniform, and of the least conspicuous of all known colors. One of the most important duties of this corps would be to see and not be seen. The test of color should not be made upon a body of troops marching in the distance, but upon the appearance of the color in the grass, in the bush, on the water, when seen at night, in the woods, or against snow.

Some conclusions can be drawn from the color of wild animals. The tiger is undoubtedly, the most inconspicuous of all; but its color would, for obvious reasons, not be suitable for a soldier's uniform. The color of birds, which depend for their safety on concealment, is found repeated in the prairie chicken, bob white, plover, and numerous other varieties of game birds. This color is the one most suitable for the scout's uniform. Shoes with rawhide soles should be adopted, and canvas leggings only should be worn. Leather usually squeaks, and is therefore unsuitable for leggings. No metallic objects of any kind should be used on the uniform. Buttons and all ornaments and insignia should be of cloth. A suitable device would be a bundle of arrows.

ARMAMENT.

The best rifles should be provided regardless of cost. The new Springfield, model of 1904, if provided with telescopic sights, would be satisfactory. A good automatic pistol should also be provided, if such a pistol could be found. The caliber should not be smaller than forty-five. Caliber should be considered in preference to type.

INSTRUCTION.

The instruction should be noted for its individual rather than for its collective value. The men should be schooled in the subject of procuring information. (The subject of security pertains more to the duty of a sentinel.) They should be taught to lie concealed and watch a column of troops pass, and then to give an intelligent report as to their organization and numbers. They should be taught to ques-

tion countrymen, women, and prisoners; to sift information and separate the true from the false; to trail and to judge the value of signs, such as the tracks of men, animals and vehicles; as well as horse dung, camp fires, the braying of mules, the barking of dogs, etc.

They should learn the military value of terrain and store the knowledge of it away for future use. They should be impressed with the value of localities through which they pass as camp sites for commands of various sizes; and they should remember the value of a piece of country with reference to the facility with which troops can pass through it unobserved.

Scouts should be expert in woodcraft; learn to read the stars, and to ascertain direction thereby, as well as by the moss on trees, the flight of birds, and other natural or artificial signs.

Scouts should know how to find their way in mountains, prairies, darkness, fogs, and blizzards; they should understand swimming and the swimming of horses; they should have a knowledge of the strength of currents, the character of bottoms, and the use that can be made of the approaches. They should also know how to make, at least crude, maps; how to make reports both verbal and written; how to carry messages, and how to destroy, if necessary, those entrusted to them. They will have to know how to live off of the country, how to hunt and fish, how to send signals, how to cut telegraph lines, and, if necessary, how to lie.

Each company should have men of special qualifications, such as telegraph operators, bicyclists, automobilists, stationary and railway engineers, electricians, railway men, linguists, etc.

USE.

The men of such a corps would probably be used in time of battle out in a thin line well to the front, and drawn in when the shock of battle came, and then used as messengers between different parts of the line. They would, as their name implies, scout well to the front, obtaining information of the enemy, bringing in the necessary reports. They might

be used to hang on the enemy's flank and annoy his march. On their reports would largely depend the general's plan of battle, and very probably the success or defeat of his army.

A partial test could be made by organizing and training one company at Fort Riley, and then using it during the field maneuvers. Time should be allowed for thorough instruction before a satisfactory test could be had. If this test should prove satisfactory, then a school of instruction should be established there, where all scouts should be trained before going out for serious work.

MALABANG, MINDANAO, P. I.,
July 28, 1904.

AN UMPIRE AT THE ARMY MANEUVERS.

By MAJOR GEORGE H. MORGAN, NINTH CAVALRY.

AS the JOURNAL is only read by professional men, I may not be misunderstood when stating that it is worth twenty years of peace to feel the joy of entering into a real campaign with a command of real soldiers, fully organized, equipped and drilled by or directly under one's self.

This joy is tempered, if any of the conditions are unfulfilled, and any officer who has omitted from his calculations that he must expect to be judged as if he were thus perfectly equipped, has either had no experience, has not studied history, or is too sanguine for real work in this world.

There can be no better test to apply to our Regulars or to the organized Militia than the test of simulated war as found in the big maneuvers, as everything up to the point of actual contact may be made as real as the same thing in war itself. The game comes in when we meet the human equivalent of bullets, the umpire; and here at the point of contact is where he ought to be met.

General Bell on the 7th of September or General Grant on the 9th of the same month, during the late maneuvers near Manassas, Va., were not, probably, considering the umpire to the exclusion of all other factors of the problem in hand; and yet, the success of the movement was, under the rules, dependent upon the rulings of the umpire, or upon the importance he might attach to an imaginary division to be placed at any reasonable time in any reasonable position by the division commander.

To illustrate the importance of the study of the genus umpire: On the 6th of September, a troop of Brown cavalry

was enabled to approach a small body of mounted men of the Blue division accompanying a battery of artillery. The Brown troop was dismounted, under cover, to fight on foot, was placed on the edge of a wood within 150 yards of the enemy, delivered four volleys with deliberation, mounted and got away without trouble. Within a half-hour the attack was renewed "cavalry" fashion. The Brown troop was formed, as before, without the knowledge of the enemy, at the edge of a wood, and burst, mounted, out of the cover, within fifty yards of the battery unprepared. The command of the troop commander, "As foragers, Charge," was probably the first intimation the battery commander had of its presence.

The umpire with the battery was not much impressed by the earlier attack, as he judged the Blue loss to be five men. From the second and faulty attack he adjudged a loss of one third to the battery. I was compelled to give a loss of seventy-five per cent. to the troop, as it unexpectedly ran into a heavy infantry support. The troop commander, of course, thought his action was justified. He had been with troops at maneuvers before, and his judgment may have been better than mine, of course; and this brings me to the point of this paper.

Granted that subordinate commanders have a chance to get a practical exhibit of the smoothness in work of their machinery at maneuvers, should we add the missing factor of danger, by encouraging the cavalry charge or, as has been suggested, by giving each side a few ball cartridges?

In my opinion, there was no question as to the relative efficiency of the two attacks as described above. Why not consider it a game to the extent that if a commander of cavalry gets his force into a position where he considers a charge practicable and desirable, he may "form for attack" and move over about half of the intervening space necessary to be covered, were the attack real, in order that there may be no misunderstanding as to the direction of the attack? Then require him to halt and await the judgment of the umpires. There can be no question as to the dramatic appearance of a cavalry charge, but it has an element of danger to

the attacked, which may well be omitted. The control of cavalry is better illustrated to a cavalry umpire, by checking it in full career, than by running it over the opposing infantry.

The umpires with the cavalry at Manassas were too few. Perhaps due to inexperience, the work was hard and still unsatisfactory to the extent that all of the ground was not covered. The number of officers for this duty should only be restricted by the extent of the available funds. An officer cannot much better get real experience in real war.

The one fact, that there is no real danger from bullets, detracts, in so much from the value of the experience; and some commanders may be unnecessarily rash and daring. This kind of valor must be controlled by the umpire.

The relief, to a veteran with nerves, after the first shock when the point receives the warning that it is expected to stop, and his heart drops back from its extraordinary position, realizing the futility of its jump, may tend to enthusiasm.

It may be proved that it would save lives in a century of war, were we to mix a few real bullets with the harmless (beyond twenty-five feet) blanks; but all classes are not educated up to this point as yet. We must, probably, go on for a few years really enjoying the hard work incident to the army maneuvers because of the joy of being fearless.

But what lesson could the cavalry get at Manassas? The cavalry at the disposal of the division commanders was so inadequate that one might well imagine one's self at the outbreak of a real war and, of course, on the first line. Each side had, on paper, about a regiment of cavalry, but the troops were skeletons, hardly forty troopers each, while the infantry regiments were generally in full strength.

The officers and men of the cavalry were generally well trained in the special work of outpost and contact duty. They took cover well, and were bold and efficient in gaining knowledge of the enemy's movements, etc.; but their numbers were such that they could offer no real resistance to the advance of the heavy infantry lines. The infantry lost in experience from this very fact.

My final conclusion was that under the conditions of the problems, the attacking force in each case should necessarily win; but could one side have replaced an infantry regiment by a full war-strength regiment of cavalry, the preponderance of cavalry must have insured its victory.

A RESERVE FORCE.

BY CAPTAIN ROBERT D. WALSH, NINTH CAVALRY.

ALL governments recognize the advantage of limiting the number of soldiers serving with their regular armies to the minimum commensurate with the public safety. With a small army the expense of maintenance is less, and the number of producers, and consequently the wealth of the country, is greater than they are with a large army. From this arises the importance attached to reserve troops, who, well trained and disciplined, are producers in peace, and in war, soldiers. In our service, the cavalry and field artillery are more closely interested in this subject than the other branches, for it may be said that the number of these troops in the National Guard is so small that they would receive little increase from this source in time of war.

Until the declaration of hostilities between Russia and Japan, we might say that only the Atlantic States were subject to invasion, and that the navy would constitute our first line of defense. The showing made by Japan has been so remarkable that she must be classed as a world-power, even if defeat should be her lot in the present struggle; and henceforth we must look to the Pacific as well as to the Atlantic coast as a direction from which we may be menaced. It is true that the Japanese and ourselves are good friends, but even brothers have been known to become estranged, and fifty years hence historians will possibly write that England and the United States were more concerned in the present war than Russia. In any event, to estimate the true strength of our navy we must consider it divided into two parts: the Atlantic and the Pacific fleets. If our navy were as great as that of England, our land forces would occupy a

secondary position. But now, with all other navies practically concentrated and ours divided, the army must be considered our main reliance to defeat invasion.

In view of recent treaties between great nations, a word may be permitted on arbitration which is now prominently advanced as a preventive of war. Arbitration is as old as justice and has been employed at all periods of the world's history. While in Judea Pompey appointed a commission to settle disputes between the Armenians and Parthians. Even during the time when all men were soldiers, in 1294, Pope Boniface VIII. acted as arbiter between the kings of France and England. When President Jefferson first assumed office, he believed it possible "to introduce between nations another umpire than arms," and that the army and navy were unnecessary. He, however, sanctioned the maritime war against Tripoli, and lack of preparation alone prevented hostilities following the attack of the *Leopard* on the *Chesapeake*. At the beginning of Jefferson's first administration, the war with France being at an end, twenty-one vessels belonging to the navy were sold. During his administration it became necessary to establish navy yards, to add sixteen vessels and sixty-nine gun boats to our fleet, to add six thousand men to the army and to increase the personnel of the navy from 1,400 to 5,000. Such was the experience of one of our own Presidents, who held the theory "that wars were unnecessary and that other means could be found by which nations could settle their differences."

Nations are not as prone to plunge into war as formerly. This is not due to a change of sentiment. The deadly nature of warfare, owing to improvements in arms and the machinery to destroy life, the great cost of war and loss of prestige to the conquered, cause nations to think many times before declaring hostilities. These improvements have shortened the period of warfare, and are the strongest possible argument that our first line should be strong enough, at least, to delay the enemy, until our full fighting strength can be developed.

Our present fighting strength, infantry, field artillery and cavalry, may be estimated at 44,000. Deducting the troops

serving in the Philippines and Alaska, the number of troops which could be put in line of battle would not exceed 30,000. This number is not sufficient to meet an invading army, and with our long sea-coast line we could not prevent that army's landing. In these days of modern transportation, transports carrying each two, three and four thousand men, would form part of the enemy's auxiliary fleet. Water transportation is now the quickest means of moving an army with its supplies. If a railroad line across the Atlantic were in the hands of our opponent, it would be subsidiary to transportation in steamships. The Militia must be moved up a notch and constitute our first line of defense, or that line must be strengthened in some other way. The expedient of filling our Regular companies to the maximum when war is declared simply weakens them at a time when their full strength is most required.

All countries in which large standing armies are maintained increase the number of men available for immediate duty by retaining the soldier in service after his time of active duty has expired. In the German empire a soldier serves first with the colors, then with the reserve, and then with the landwehr or second reserve. All countries which recruit their armies by conscription have adopted a similar system. In the United States no attention is paid to a soldier after his enlistment has expired, though every year large numbers of men are discharged who, if organized, would constitute an efficient force. Soldiers who do not re-enlist would often be willing to do so at the prospect of active service, and, if their addresses were known, it would be feasible to organize them into companies and regiments. The argument may be advanced that these men will be found serving with regiments of Militia or Volunteers upon the outbreak of war, and that they will be of great utility in these regiments. I think it will be found that only a small proportion served in the Spanish War. They believe that their knowledge of military life and former service entitle them to some consideration in the appointment of commissioned and the higher noncommissioned officers. Such consideration is seldom shown them.

To illustrate more clearly: Private Lewis Baldwin, Com-

pany K, First Infantry, is discharged by expiration of his term of enlistment. He does not reënlist, but would be glad to do so in the event of war. He selects Philadelphia as his place of residence, goes before the recruiting officer in that city and takes an oath of enlistment to serve in the Reserves for the period of three years. He thereby pledges himself in case of war to serve as a soldier the remainder of his enlistment or be considered a deserter. He is then assigned to a company and regiment, and reports at the headquarters of his organization. He is to report in person or by letter at stated times and to notify his captain of any change in his address. Should his new residence be distant from his former one, he may be transferred to another regiment, or his orders may be complied with by his reporting on the outbreak of hostilities at any one of certain designated places—the object being that the individual may not be hampered in any way in his civil life, and that when needed the Government may have a trained soldier ready to enter the ranks.

As a recompense Private Baldwin is annually paid \$20. In addition, the headquarters of the regiment is fitted up as a regimental club, with reading rooms and a gymnasium. A discharged soldier of good character joining a Reserve regiment would find himself among friends. Men in search of employment would be assisted by their comrades, and the chances of a discharged soldier's making a success in civil life would be increased. That there is a tendency among discharged soldiers to band together, is shown in the formation of the posts of the Grand Army, of the societies of the Spanish-American War, and in the formation of the garrisons of the Army and Navy Union. With the Government's assistance these Reserves should become efficient reserve organizations, and the total cost would be about equal to what economical Switzerland pays one of her militiamen. To ensure success the service should be made attractive, and the Government should render the assistance required to make it so.

The field officers and one-half of the captains should be detailed from the regular service. The latter from among the lieutenants, and the field officers from grades above that

rank. By detailing half the captains from the regular forces they would bring to a reserve regiment the newest methods and customs of the service. The detail of this number of officers from the regular forces may properly be objected to as reducing still further the number of officers for service with their proper regiments. This is a valid objection, but one which cannot be considered in the present article. It may, however, be suggested that the depletion of regular regiments of officers for various staff and other duties, for which in our service there appears to be no remedy, might be compensated for by the appointment of a sub-lieutenant in each organization to hold his commission for a limited period and to be appointed from the enlisted men of the regiment. All remaining officers of the reserve regiments should be selected from among its members, there being a limit as to the time they should hold their commissions—this with a view to retaining comparatively young men as company officers. Noncommissioned officers should also be appointed. In fact, a reserve regiment should be so prepared that it would be ready to move with only short notice.

In time of peace one of the field officers should be in command of the regiment and in charge of its headquarters. He should be assisted by a sufficient enlisted force to perform the clerical work and properly care for the headquarters, gymnasium and reading rooms.

Twenty-six years may be taken as the average age at date of discharge of soldiers serving their first enlistment, and twenty thousand of these men are discharged yearly. Only those of good character should be permitted to serve in the reserve. The average soldier should be capable of rendering service up to forty years of age. Perhaps the greater portion of discharged men reside permanently in cities, but the regimental headquarters while situated in a city, should embrace the surrounding territory, or in some cases the entire State.

It is not proposed to enter into full details as to the formation of these regiments. Whether they should be issued arms and uniforms, take part in maneuvers, what service they should render annually, what should be the qualifica-

tions of officers, etc., etc., can only be determined by experience. It is certain that discharged soldiers now form clubs for social amusement and mutual benefit, and it is believed that this tendency, properly fostered by the National Government, would result in the formation of a well drilled and efficient reserve. It is, however, useless for the Government to ask service without giving in return a recompense.

As to the number who would enroll themselves, perhaps one in five would do so, perhaps one in seven. It is believed that 30,000 would be about the ordinary number, which would give a force equal to that our Regular Army could put in the field. An army of 60,000 would still be small numerically to oppose an invading army, but it would be better than 30,000.

REMOUNTS.

A PLAN FOR PROVIDING SUITABLE HORSES FOR CAVALRY AND ARTILLERY PURPOSES.

By MAJOR LOYD S. McCORMICK, SEVENTH CAVALRY.

THIS important subject has for a number of years engaged the attention of all European nations. In most of them the fact is recognized that some inducement is necessary in order to keep the supply up to the standard, and equal to the demand. Different nations have adopted different methods in order to accomplish these results; but all the methods have in view a means by which the government may readily supply itself with the animals needed under the ordinary conditions of peace, and also equip itself in this respect, when preparing for war, more promptly and with more serviceable horses than it could, if their breeding should be left to the accidental results which follow the course adopted by the great majority of farmers, from whom nearly all horses must be originally obtained, unless the government should raise its own horses.

That the mounted branches of the European armies have greatly profited by this encouragement on the part of their governments, is well established by the reports of officers who have had a chance to see the public horses of these nations and observe their performances in the field. With such proofs in front of us, it seems strange that the United States have never made any effort to encourage the breeding of an animal suitable for either cavalry or artillery purposes. As to original cost the horse is far ahead of any item of individual equipment; and when his daily expense is added to that original cost, there can be no question as to his being by far the most expensive article of our equipment, except, of course, heavy guns. Why then should the supply be given

so little consideration, when by a moderate amount of encouragement we should have in the United States the finest army horse in the world? It isn't that he is considered an unimportant factor in our army, for nothing is written or said to substantiate that idea.

Without cavalry and artillery able to live under the hardest and most wearing service, an army is almost helpless when not besieged; and that is not the condition to be considered. Of two opposing armies, equal in all other respects, the one with the best cavalry and artillery will, in all probability, win the battle; and in the pursuit, will be able still further to cripple the one with weak and broken down horses. A comparatively small mounted force can, then, more than repay its government for any reasonable effort that was made to put it on the best footing.

This brings us to a consideration of what is necessary in a good cavalry horse; for this paper will deal more directly with that animal. The description given in paragraph 1142 of the Army Regulations (1901) is that of an almost perfect horse; and if such horses could be readily supplied under existing conditions, nothing more could be desired. When we look for such horses in our ranks they are so scarce that the sample is lost sight of, and we have to satisfy ourselves with an indifferent animal, and wonder why specifications are made when the material supplied under them so rarely follows more than the most salient requirements, and frequently does no more than touch even them. What officer ever joined a troop without a lasting search for even a fairly good mount? I think every cavalry officer has had the experience of serving with a troop in which he could not find a horse with anything but the most back-breaking gaits. The horse probably stumbles once or twice in every hundred yards, and has no ambition not induced by an application of the spurs. And as for appearance, the officer is glad if his mounted duty leads him into seclusion.

I admit that a great many of the traits found in cavalry horses are forced on the animals by their riders, and that it is rare that a well mannered horse is found in the ranks. This, of course, will continue to be the case until the officer

and soldier, particularly the latter, are instructed to such an extent as to realize that the horse is a willing animal and that his best efforts are secured without excitement or abuse. The presence of manners, even if our horses had them, will not, however, altogether compensate for the natural defects of conformation and action so often found. To assure satisfaction in these respects attention must be given to the breeding, and this can only be productive of good results when such attention is regulated by some well proved system. This phase of the matter will be taken up later.

From the results of the present method of supplying our horses, I think it only a fair conclusion, in which I believe all cavalry officers will agree, that the horse described in paragraph 1142, Army Regulations (1901), will rarely be found among those owned by the government. And the impression grows stronger each year, that such horses are not readily found in the United States. The few that are raised find a ready market among civilians who enjoy riding a good horse and have the means for indulging in that pleasure. And until the supply is perceptibly increased, the army may get all possible satisfaction out of occasionally watching a real saddle animal ridden by its owner.

By saddle animal I do not mean what is known as a gaited saddle horse; although I do believe that if our cavalry horses were bred from fox-trotters, and our officers and men taught how to ride them, we could break all records for distance traveled in the field and for condition of both man and horse during and at the end of a campaign. The fox-trot does not in any way interfere with the regular walk, trot and gallop. It is merely a gait between the fast walk and the pounding trot, at which the horse can continue for almost as many hours as he can at a walk, and cover about one-third more distance. It is easy for the horse and for the man, and at the end of the day the horse will be comparatively fresh and the rider will not have had every bone in his body pounded until it is sore. He will be fit for something if occasion demands it in the way of guard or night work of any kind. Do not confuse the fox trot with the dog-trot, for they are as distinct as the trot and gallop. The

fox-trot is peculiar to the United States, and a cavalry command mounted on fox-trotters could make its marches of thirty and thirty-five miles every day with less grief to horse and man than we can at present make twenty and twenty-five miles. Any saddle-horse man will confirm this statement. Such an ability would be a supreme advantage to an army. To secure it, however, would take several years' attention—probably ten or fifteen, and the experiment will not readily be made in this country.

There are two phases to the remount question. The only one ever attempted in the United States, so far as I know, dealt simply with such horses as were picked up by whatever system of buying was at the time in practice. In former years, beginning while the Civil War was in progress, the horses were bought by cavalry boards. In recent years they have been bought under the contract system, and a more faulty method could not well be devised—faulty, that is, for the army; but ideal for the contractor. These new horses were shipped to some selected locality and turned loose in immense corrals, to which also were sent sick and broken-down horses from the regiments. We saw some similar corrals during the Spanish War, and the chance for improvement for either the new horse or the broken-down one was as near nil as anything on this earth can well be. Beyond a slim chance at getting a portion of his forage and an occasional drink of water, he gave evidence of the acme of neglect. I once served under an officer who had been in charge of one or more of these corrals during the Civil War. I think they were at City Point. From his description of the means at his disposal for caring for these horses, it is not surprising that thousands of them died; but it is surprising that any of them lived.

A remount system depending solely on depots for recuperation of sick and debilitated horses will never, I believe, render a return for the fence enclosing the grounds. During a fast and hard campaign it might be advisable, if practicable, to ship worn-out horses to the rear to such a place, if a sufficient force of competent veterinarians and nurses were at hand to give intelligent care to every horse; but if the

depot corrals we have seen were samples of what are to follow, deliver us from such an empty effort. Under ordinary conditions full recuperation should be provided for in the post, either in each troop or at a central plant. In twenty-seven years' service I have seen only one place provided for the treatment of disabled horses, and that place is the make-shift at Fort Leavenworth. I understand that more complete provision is contemplated. Of course such a plant is needed, but its services will be required, to a great extent, by the horses of weak constitution and unsuitable conformation—classes from which we get so many now, but from which we need get none if more good horses were bred and a different method could be followed in buying. Just as the weak men require almost constant attention in our hospitals, so will these classes of horses monopolize the veterinary plant. No one can claim that there is a sufficient supply of horses suitable for our cavalry. Possibly they could be found if the country were raked from all directions, the contractor eliminated, and the purchase money could go direct to the owner of the horse. But as long as the contractor must make a profit of from forty to fifty dollars on each animal, we need not look for much real improvement, no matter how many remount corrals may be established.

To secure results we must do something to increase the number of suitable horses produced, and after having those that are bought properly trained and gaited for saddle purposes, require from both officers and men sufficient knowledge of how to care for them as to preserve their serviceable qualities as long as possible.

To my mind a remount system should deal only with the question of furnishing and training the new horses that are required from time to time. The first thing to do in this line would be to adopt some system under which the farmer would realize that his pecuniary interests would be advanced by becoming a party to the system. This, I think, could easily be accomplished with a reasonable outlay by the government. Five suitable stallions could be bought for not to exceed \$500 each. One hundred suitable mares would cost not more than \$250 each. These animals would represent

an expenditure of \$27,500. The product each year would be about one hundred colts, one-half of which would be horses, and the other half mares. At the end of four years there would be about fifty stallions old enough to be used for breeding purposes. An arrangement could certainly be made with the government of each State to take one of these stallions and locate him in a section in which the breeding of horses was something of an industry. The stallion would become the property of the State, the only conditions imposed being that he should not be castrated, and that the cost of service should not exceed that of the average stallion in that section—barring track horses of all kinds. This would bring him within the reach of the poorest man owning a mare. Each year thereafter an additional three-year-old stallion would be furnished each State on the same conditions.

In a comparatively few years every State would have a number of high-class stallions from which suitable horses for cavalry and artillery purposes could reasonably be expected; and horses of this class are more generally useful in civil life than any others. To prevent in-breeding, each of these stallions should be changed to a different section of the State every four years, and should not repeat his tour in any one section. In the meantime there would be coming on each year about fifty mare colts. A few of the best could be retained at the home plant to replace any of the older ones that proved to be not good producers. The rest could be sold in the market; or better still, to farmers at a moderate price, on the condition that they be bred each year, as far as possible, to stallions whose origin was from the home plant and of different stock. This particular feature could not easily be continued very many years; but before it would become too complicated, the breeders themselves would protect their increase from the ill effects of in-breeding.

The greatest judgment and care would have to be exercised in buying the stallions and mares with which to make the original start, or failure would be inevitable. Frequently the stallion or mare, about which no adverse criticism can be offered as an individual, proves to be weak as a producer;

and for this reason, no animal of either sex should be bought until a sufficient number of matured colts were examined and tested to indicate beyond reasonable doubt that future progeny would possess the qualities which have been proved to be most desirable. Such indication cannot be determined from the appearance, conformation or qualities of the sire or dam, but must be obtained from testing their get after maturity. The selection of these animals would therefore not be a duty very quickly performed, for it would be no small task to find, say twenty matured horses from a certain sire, and examine and test them to such an extent as their owners would permit. Of course the pedigree of each animal bought must be carefully verified and recorded, so that cross-breeding might be followed in the public stable. No one strain should predominate in any two of the stallions, and as many good strains as possible should be found among the mares.

Connected with the home plant, and in time with each State plant, could well be started the real remount depot, the officer in charge being authorized to buy any horse presented that filled all requirements for the cavalry or artillery. He would know the number required at all times, and until that number was on hand he should not be handicapped in any way. His judgment alone, with that of a veterinarian, if he needed one, should govern, and the tests to which his judgment would soon be put should determine when his detail should cease.

The owner would get the full value of his horse; and the benefits of the system would be distributed among all owners who might have occasion to sell one or more horses. Under our present system the profits do not go to the producer, but to the keen buyer who naturally takes advantage of every influence which tends to force the owner to part with a portion of his most valuable assets. If there is anyone who is entitled to the full value of his fruits, it is the farmer. He frequently is brought to the brink of disaster through sickness, loss of crops, fire, etc.; and under just such conditions he is forced to sell some of his horses. The buyer is always ready to take the horse, but he never fails to

get every cent he can out of the unfortunate circumstances surrounding the seller. If there were such a place as the remount depot outlined above, where the man could go with his horse, and where he would get its full value, the additional money so placed would surely be of greater benefit than if it had accrued to the intermediate man.

The officer in charge of the remount system should also be authorized to hire a suitable number of expert riders to train the horses so collected, instead of turning them loose in a corral to hustle for themselves until they are shipped to a command. Such riders can be secured among growing boys and young men who fully understand the practical work. Kentucky and western Missouri are full of such material. The horses should be ridden every day and trained to obey all the aids without excitement or resistance; and also accustomed to equipment of the arm for which they are intended, so that when received by troops they would be acquainted with every sight and sound by which they were to be surrounded. As soon as proper provision can be made after the first year, the officer in charge should be authorized to buy colts that have reached an age at which their qualities are shown; and their training should be begun at once and continued until they are ready to be sent to a command.

With any sort of care and attention the most thoroughly trained and obedient horses would as a rule come from this supply. The colt is easily controlled and if taught obedience from almost the beginning of his life, he never thinks of resisting.

Nearly every foreign country imports horses for the public service every year. At present the United States gets a comparatively small portion of this trade during times of peace. We could have nearly all of it, and it would amount to no small figure. Year by year the countries of Europe, excepting Russia, are more restricted in grazing lands, and necessarily have to look to those countries with extensive lands of this kind for a supply of the animals for whose proper increase wide ranges of pasture are required. South America is being drawn upon to a considerable extent; and even wild, unbroken horses are imported to supply the de-

mand. During the progress of a war this demand is largely increased, and we should have almost a monopoly of the trade. I have seen it stated that during the Boer War England bought about 125,000 horses in this country. Assuming fifty dollars as an average price paid, and it was probably greater, it is seen that more than six million dollars were distributed among the raisers of horses in this country. This is no indifferent amount of cash to receive in return for the comparatively small outlay required. To secure so many horses England had to take almost anything that was presented, with the result that the commands in South Africa were not well pleased with their mounts. There were several side-issues, connected with this large sale, that increased the amount of money brought to this country. It required the employment of a large number of men, the purchase of forage by the train-load, and the transportation lines of the West and Middle West reaped a rich harvest. It is extremely doubtful if a repetition of those conditions would result in so much money being again expended in the United States. Instead, it would probably go to South America and Australia.

We already control the mule market for the world; and there is no good reason why we should not do the same with horses.

A PROPOSED MODIFICATION OF THE PRESENT DETAIL SYSTEM.

BY LIEUTENANT CONSUELO A. SEOANE, THIRD CAVALRY.

EVER since the detail system for the staff departments became a law, we have with some sorrow noted the enthusiastic and consistent manner in which articles by various writers have appeared, particularly in the lay press, condemning the system for the Ordnance Department. We are called upon to notice repeatedly the number of existing vacancies and the improbability of ever filling them. Articles are brought out claiming that the Secretary of War has been won over into admitting that some other system will have to be devised for this department; again we are asked to believe that the Chief of Staff is to recommend against the system. Accepting the above as a statement of the facts, let us inquire and examine into the foundation of this state of affairs. Why does the present number of vacancies exist in the Ordnance Department? Enemies of the detail system say that officers of the line will not prepare themselves for such a technical branch, when, after a course of four years, they shall have to return to the line; and, as a consequence to such a condition, the supply of officers anxious for service in the Ordnance does not equal the demand. One cannot accept such an explanation without adding to it an exposition of the surrounding features and circumstances, and, accordingly, the reply to the interrogation above, would be somewhat as follows: Officers of the line do not prepare themselves for service in this branch because they recognize that it is next to impossible to pass the required examination for entrance; they see officers from West Point who were graduated sufficiently high from that institution to be assigned to the artillery, fail before an ordnance board; so,

instead of seeking admission, the other branches stand aghast and ask themselves, "What do they want?" There is an element of uncertainty and suspense lest the work of preparation may go for naught in almost every examination; and when such examination is surrounded by almost insurmountable conditions, few officers can voluntarily submit themselves to the ordeal.

To an investigating genius there is a vast field open for development from which we could receive much enlightenment; it has never been covered thoroughly. I refer to the psychological aspects of examinations. If a writer of strong idiomatic English, gifted with wit, common sense and the power of exposing the depths of human nature were to undertake this subject and analyze it as a Darwin, a Bacon or a Huxley would have done, we are sure that one of the conclusions he would arrive at would be, that the average person appears before a board of examiners with somewhat of the feeling that historians tell us the two young soldiers had who were summoned before the great Elector of Brandenburg, Frederick William of Hohenzollern. Strong suspicion attached the crime of murder to these young men, and as all other means had failed, in order to determine their guilt they were ordered amidst great ceremony and pomp to throw dice before the great Elector. This was called "an appeal to divine intervention," and the loser at the hazard was to be executed for murder. The first soldier threw two sixes, the highest score possible. On seeing this, the second soldier (Alfred was his name) fell on his knees and prayed to God for protection, saying he was guiltless. Then he threw the dice with such force that one broke in two pieces—one piece turning up an ace, the other a six; the whole die showed a six. This gave him a total of thirteen, and the assembly, filled with astonishment at the wonder, declared Alfred a free man.

Alfred's feeling before he threw the dice is the feeling of a person with an inclination to serve in the Ordnance to-day. He looks at the list of officers who have failed, and if that is not sufficient to deter him, he appears before the board hoping that some divine intervention may pull him through.

A man must be possessed of more than ordinary hope who will resign himself to a year or two of study with only an Alfred's chance of winning. There are few such men.

Again, those whose sympathies are against the detail system may show that the ordeal of examination has been surmounted by officers representing the three arms, and that the above deduction is not along the lines of correct and truthful investigation; but as logical conclusions can be drawn from false principles, and as error can be propagated by false premises, so champions of either side can go on to the end discussing the merits of the system of details.

Major Black, of the Corps of Engineers, believes that, as a means of proving the efficiency of an officer, an examination is a failure. I believe so too, and I purpose to suggest a different plan for selecting efficient officers for the staff corps.

The detail system must stand as it is enacted or go down all together, for if one department is to be permitted to set it aside, it will not be easy to draw the line where others shall stop. There was a time within the memory of young men when the Signal Corps was confronted with the great difficulty of demonstrating that it formed a part of the army, no less a person than the Secretary of War maintaining that the corps formed no part of the national defense. To-day, for entrance into that corps, they also would fix as a standard a prohibitive examination. Other departments will follow in line, until finally there will be no staff department whose threshold can be crossed by an officer of the line; and the detail system will be at an end.

Without further argument, here is the plan I would suggest: Let there be selected each year, or from time to time by any method except examination, such number of officers as may be required to fill the vacancies existing or to occur within a year in the Ordnance Department and let these officers be sent to one of the service schools for a course of instruction for one year. Let the school be the Artillery School or the Engineer School of Application or any other school deemed the most suitable; and if the present course at the selected school be regarded as insufficient for the prep-

aration of an officer for detail to the Ordnance, let there be such addition made to the course as may satisfy this department; but let the course be not longer than a year, and upon graduation let the officer be detailed for a tour of four years with this department.

If this system of *quid pro quo* be substituted for the fruitless examination system of to-day, we shall have accomplished the elimination of the false quantity from the equation; we shall have set aright a system correct in inception, deflected in execution. Under such a system there would be no dearth of officers applying for service with this department, and no further reason for affirming that the detail system is a failure.

THE USE OF THE BICYCLE IN THE ARMY.

BY LIEUTENANT FREEBORN P. HOLCOMB, FOURTEENTH CAVALRY.

THIS subject has been discussed a great deal during late years, but it seems to have been handled by men who have had very little experience in bicycling, and less in the army. One writer will say that the wheel is absolutely worthless for hard service over a rough country; and another, that it can be used to advantage under any conditions. The opinions differ so much, that it is hard to draw any conclusions, pro or con. I will endeavor to show, by actual experience, that the bicycle can be used in a rough country, over almost impassable roads and under the most unfavorable circumstances, and still be more useful in mapping, messenger service and reconnaissance than the horse.

In September, 1896, while serving as a private in Troop B, Eighth U. S. Cavalry, I was detailed with seven other enlisted men, on a reconnaissance and mapping expedition (using bicycles) with Captain De Rosey C. Cabell, First Cavalry (then first lieutenant Eighth Cavalry). The regiment was to go on a practice march from its station, Fort Meade, S. D., to Morecroft, Wyoming, and the scheme was for the bicycle detachment to precede it one day, make a map of the country, lay out the camps, and arrange for fuel and forage for the troops. As I now remember, the orders were to send a messenger back to regimental headquarters each day with a copy of our map, showing the location of their next camp, and a message about the fuel and forage. Our tentage and rations were carried in a light escort-wagon drawn by four horses. Each man was equipped with one blanket, canteen, cartridge belt, pistol, and carried cooked rations for one day in a haversack. The regulation blue uniform was worn.

The bicycle detachment left Fort Meade one day ahead of the regiment. The first day we traveled and mapped thirty miles, camping three miles beyond Spearfish, S. D. The roads were in good condition, and we made the thirty miles in about four hours. The next morning two members of the detachment were sent back to meet the regiment and deliver the map and message. At the same time the remainder of the detachment went on. That day we made thirty-one miles and camped at Sundance, Wyoming. The two messengers joined us that evening, having ridden seventy-one miles, the roads being in good condition. That night it rained and our troubles began, as a wheel is not of much use on a muddy gumbo road. The next morning another man and myself were detailed to take the message back to regimental headquarters. We had twenty miles to ride over the worst possible roads. It was still raining when we started. Our road was mostly uphill, and the wind was blowing a gale in our faces. Could the conditions have been worse? In some places it was impossible to push our wheels in the road, and we rode the greater part of the way on the side-hills. We arrived at Beulah, Wyoming, where the regiment was to camp, in four hours, the distance being twenty miles. Upon arriving at Beulah, we found that the regiment was not there, and, as our orders were to deliver our message at that place, we waited. The regiment did not arrive until late the next day, having been delayed by the rain.

After delivering our message, we started back to join our detachment. The rain in the meantime had stopped, and the roads were fairly good. When about half-way back my companion's wheel broke down and I had to go on alone. Upon arriving at Sundance, where I had left the detachment, I found that they had left early that morning, and there was nothing else for me to do but to go ahead. Shortly after leaving Sundance, I met two of our men riding back with the daily message, and they told me that the detachment had camped about twenty-five miles further on. The road was very good, and I joined them that night, having ridden forty-five miles that day.

The next day we rode into Morecroft, thirteen miles, to await the arrival of the regiment. My cyclometer had registered 139 miles since leaving Ft. Meade, four days before. The regiment arrived four days later and went into camp. After remaining in camp one day, the First Squadron was ordered to march to Devil's Tower, sixty-eight miles from Morecroft, and we were ordered to proceed with them to make the map. This entire trip was over the mountains. The roads were so bad that we left them altogether, and took the bridle-paths. We made the trip and return in three days, mapping the roads or rather the paths, as we went. The squadron took one day longer. The morning after the return of the squadron, the regiment left for home. We were not required to send back messengers on the return trip, and could travel as fast as we pleased. The detachment left as the regiment was forming, and went into camp about noon, at Sundance, a distance of thirty-eight miles. Leaving the latter place the next morning, we arrived at Fort Meade about 5 o'clock that evening, having ridden sixty-eight miles that day. The regiment arrived five days later. The detachment had ridden 396 miles, had been absent ten days and had done all the work required of it under the most unfavorable circumstances. All the distances mentioned above were accurately measured with cyclometers.

This trip certainly shows some of the possibilities of the bicycle. Under favorable circumstances, the average man, with a little training, can travel from thirty to fifty miles a day, seven days in the week, and map the country as he goes. At the end of his journey, he will have traveled farther, have his distances more accurate, and be in better physical condition than a man who attempts the same, or a much less task, on a horse. Especially in the presence of an enemy, the wheel would be useful in making a reconnaissance, as it runs almost noiselessly. Should the wheelman come upon a patrol or detachment of the enemy, he can hide himself more readily than if he had a horse. I do not by any means advocate the mounting of cavalry on bicycles,

but I do say that the wheel is superior to the horse for some kinds of work, under favorable conditions.

With roads such as we have in this country, a bicycle corps, for reconnaissance, map-making, and messenger service, would be a great addition to our army. When the roads are such that the wheelmen cannot operate, the wheels can be put in wagons, and the men mounted on the extra horses, as the wheels will more than pay for the trouble, by one or two days' work in a week. The great advantage of mapping with a bicycle is, that the distances are accurate,—much more so than timing a horse on the road. Should the horse shy or jump at any object, distance is either lost or gained; but the wheel goes right ahead, and its cyclometer registers the distance to a foot. Every cavalryman knows how hard it is to get a horse to trot alone, at a gait of eight miles an hour. To map with any degree of accuracy, with a horse, it must be done at a walk. Then the mapper can only travel four miles an hour, if he is lucky enough to have a horse which will travel at that rate. This is another disadvantage, while with the wheel he can go twenty miles an hour as well as two, and then have his map more accurate.

The popular idea of a wheel for hard rough service, is that it must be a heavy one. On the trip which I have cited in this paper, I used a twenty-pound "Outing" machine, with light racing tires, and never had a breakdown of any kind. However, I would not recommend such a machine for general service, substituting a twenty-five or thirty-pound wheel with heavy cactus-proof tires. In all experiments with bicycles, one of the greatest drawbacks has been the chain's getting out of order, and clogging with mud and sand. This difficulty has been entirely overcome, however, by the adoption of the chainless machine.

In connection with the use of the bicycle in actual service, Captain Carl Reichmann, Seventeenth United States Infantry, military attaché with the Boer army in the field, says: "In the transmission of intelligence, the bicycle played a prominent part. The cyclists did not confine themselves to the roads on which they had the right of way; they made short cuts by following cattle paths, and even rode across

the prairie. During the operations in the Free States in March and April, the number of cyclist dispatch riders was considerable, and they were numerous in the operations east of Pretoria. They could be found at every general's headquarters, and General Botha usually had two or three cyclists at his disposal, in addition to several mounted orderlies. The cyclists did not encumber themselves or their wheels with any special equipment, were dressed like ordinary cyclists (knee breeches and long stockings), and sometimes carried a revolver."

Captain S. L'H. Slocum, Eighth United States Cavalry, who was military attaché with the British army at the time says: "Only a few bicycles were used by the army. They are one of the available and perfected means of rapidly and cheaply transporting the soldier, and bicycles should, I think, therefore form an integral factor in every army. In a country where the roads are generally excellent, as in England and on the Continent, I see no possible reason why a large bicycle corps should not always be well to the front, and in conjunction with a large body of cavalry, render most valuable service."

The following are extracts from the reports of the military attachés to the different European countries, in connection with this subject:

Germany: "It is also significant that the Germans have for the last two years, made good use of cyclists. Those of each army were organized into a company of three officers and one hundred and fifty men, taken from different organizations."

Italy: "On account of the good results obtained at the maneuvers, three new bicycle companies, each having a captain and four lieutenants, will be organized."

France: "Two new bicycle companies are to be organized in addition to the two existing ones. They are to be one hundred and fifty men each."

Russia: "On January 19, 1900, an order was issued fixing the distribution of bicycles. Fortresses of the first, second and third classes, infantry battalions, infantry regiments, artillery companies and detachments of telegra-

phists, are all given bicycles. The type of the bicycle is left to the discretion of the local higher military authorities, the rigid type, however, being retained, as the folding bicycle has proven unsatisfactory."

Switzerland: "Bicycles were much used by patrols and scouts, and for messenger service in the place of cavalry, which is expensive to maintain in Switzerland. The roads are generally good, and favorable for cyclists. In the route marches, a cyclist marches with the captain, and two or more with the regimental or battalion commanders."

If all European countries can experiment so extensively with bicycles, why cannot the United States? Certainly what we have heard of the excellent services rendered in South Africa by bicyclists, both on the British and the Boer sides, is in favor of the adoption of a bicycle corps in our own army.

One of the greatest drawbacks in the experiments with military cycling, has been the question of equipment. In most cases, the soldier has been required to carry almost the same equipment as a cavalryman. This, of course, impedes his progress. It is unreasonable to expect the cyclist to perform the duties of a cavalryman. He should have his own distinct duties, and should be properly equipped to perform them. In time of war, the cyclist should carry only a large caliber pistol, mapping outfit, and should "rustle" for his rations and a place to sleep. In this way, efficient service can be obtained, but the loading down of the cyclist, and the making almost a pack-mule of him, will never be a success. Every army should have a corps of men, skilled in map-making, and reconnaissance work, and trained in the use of the wheel, as the cavalryman is trained in the use of horses. Cut the equipment down to almost nothing. There is about as much use for a military cyclist to carry a rifle or carbine and a heavy ammunition belt, as there is for a sailor to wear spurs. He must be taught to rely only on a pistol and a clean pair of wheels, for his own safety. He must be taught to disable his machine in case of capture, so that it will be of no use to the enemy.

There should be a school at Fort Riley, Kansas, for a bi-

cycle corps. This corps should consist of a small number of men, picked for the purpose, and commanded by an officer, or officers, skilled in the use of the wheel and in map-making. These men should not be required to drill, but instead, they should have a thorough course of instruction in map-making and map-reading, reconnaissance, and the mechanism of a bicycle. Each man should be taught the simple repairs of tires, and other parts of his machine, which he might be required to make on the road. He should be able to take his wheel apart, and to adjust the bearings, etc., without damage to the threads. This would be useful in caring for the machine after a trip through mud and rain, as no bearings can be made mud-proof. All this instruction would be a matter of a short time, and after a thorough course, a number of men could be turned out who could map at the rate of thirty miles a day (on good roads), who understood the care of their machines, and who had learned to "rustle" for themselves in the field. This detachment should be attached to a troop (or troops) of cavalry, and not required to do any post duty. As soon as the course of instruction was completed, they should be sent to different posts, and be required to map the country in the vicinity of each. This would not only keep the men in practice for mapping, but also keep them in condition for long rides. They should all be sent to the place of the summer maneuvers, and be required to put their work into practical use. After one or two trials at the maneuvers, they would show what they could do, and their work would be excellent, provided they had received the proper course of instruction.

As to the make and style of the machine, equipment and uniform, I will leave it to some one else to suggest. However, I will say, the simpler the better. If this scheme should ever be adopted in our army, it will be found to be an inexpensive experiment.

SUGGESTIONS TO YOUNG OFFICERS.

[EXTRACTS FROM REMARKS MADE BY GENERAL BELL TO STUDENT OFFICERS OF THE GENERAL SERVICE AND STAFF COLLEGE AT THE OPENING EXERCISES ON SEPTEMBER 14, 1903.]

TO those who have been careful observers of the recent trend of progress in our army, there need hardly be pointed out the value of the opportunity which is now afforded you gentlemen. It is my conviction that few incidents connected with an officer's career can lead to greater credit upon his record than graduation with distinction at this service school. It becomes a stepping stone to service at the War College, or on the General Staff, besides leading to possible selection for important duties which may afford opportunity for achieving additional distinction.

A stage in the existence of our army has now arrived when no officer need expect to achieve any considerable distinction without acquiring the reputation of being a zealous practical student of his profession, and industrious and conscientious in devotion to his duty.

The course of instruction you are about to enter upon consists of two kinds—namely, study of theory, with recitations, and outdoor practice in the field. The former is sedentary; the latter involves some physical exertion. They sometimes come at different seasons of the year, and sometimes together. When engaged in the former kind only, it is essential that you take necessary exercise. If you neglect to do so it will not be long before your physical condition will be such that you cannot study properly. You may have sufficient will-power to force yourself to go over your lessons, but you will find it impossible to concentrate your attention or fix the subject-matter of lessons on the mind.

A most important part of an officer's self-education is the cultivation of habits of accurate observation, of careful discrimination in the reading of instructions and orders, and of thoroughness and accuracy in the execution of them. The art of accuracy and thoroughness depends much upon accuracy of thought and diction. One cannot talk or write clearly or definitely without thinking clearly and definitely. Ability to do this can be cultivated only by constant practice. Nothing assists so much in acquiring these qualities as a habit of giving careful study and consideration to the transaction of ordinary routine administrative work. The instructors in this institution are therefore required to make every endeavor to inculcate habits of careful observation and accurate thinking, to the end that student officers may acquire and foster habits of accuracy in the interpretation of orders and in complete and thorough compliance with same.

Officers must expect to be judged by such habits of precision as they exhibit in understanding and complying with directions and orders received during the course of their instruction and every-day duty.

* * * * *

Nothing is so calculated to create a favorable impression of an officer's worth, reliability and usefulness as the amount of pains, thoroughness and system observable in his manner of performing his simple every-day work. These qualities are particularly liable to be taken cognizance of by superior officers when considering or examining reports, indorsements, accounts, proceedings of boards, records of courts-martial, correspondence, essays, etc., etc. An officer who submits a carelessly written, incomplete document, or an indorsement which clearly shows he has taken no interest in, and made no careful study or investigation of the subject dealt with, is sure to create a more or less unfavorable impression upon those who read it. On the contrary, one who has the habit of making clear, brief, pointed statements of all the facts necessary to a complete understanding of the subject he treats, who leaves nothing uncovered in his presentations, who evidently gives careful study and considera-

tion to clearness and brevity of statement, is bound to create a favorable impression of his ability and zeal.

* * * * *

Nothing is more indicative of habits of precision and care than papers which an officer has produced, in which efforts at neatness are evident. In this regard no half-way measures should be employed. A slovenly indorsement, written on paper with ragged edges, pasted on askew, with the lines of writing running in every direction, is indicative of slovenly habits. In preparing indorsements, scissors should always be used to cut the paper, and a ragged or protruding edge should never be allowed to go forward.

* * * * *

In official correspondence, a wise and experienced officer presents all matters in a direct, straightforward, unequivocal, dignified manner. He never deals in subterfuge or sophistry, avoids animadversions upon personal characteristics or motives, eschews sarcasm and ridicule, and shuns the appearance of trying to be keen or smart. He does not try to instruct his superiors in the logic of the circumstances and conditions set forth, or seek to influence their judgment by specious arguments. He recognizes that if a plain, candid, forceful, dignified, dispassionate statement of facts, leaving to his superiors the privilege of drawing self-evident conclusions, is not sufficient to justify his conduct, or establish the correctness of his views, he has a weak case, in which no arguments on his part are going to win with capable superiors. He does not enter into tedious explanations or excuses for sins of omission or commission. If he feels that some explanation is absolutely essential to his own satisfaction, he makes it in as few words as possible.

He realizes that none of us are infallible; that we are all liable to err, and believes that, generally speaking, when one discovers or feels he has not been prompt, has forgotten or failed to attend to a duty, has made a mistake, or has acted inadvisedly or hastily, it is better briefly to acknowledge error by an expression of regret. This course leaves a better impression of an officer's mental caliber and attitude. Nothing conveys so unfavorable an impression of a

person's mentality or disposition as vain and persistent efforts to support an illogical or untenable position by specious arguments or excuses.

* * * * *

A liberal-minded, sensible officer has a habit of attributing to others motives and intentions as praiseworthy as his own. As it takes two to initiate a controversy, he resolves not to be one of them. If a comrade, inspired by illogical resentment, makes the mistake of reflecting upon his motives or conduct, he does not foolishly reply in kind or enter into lengthy and acrimonious rebuttals, but replies with a dispassionate, dignified statement of facts, leaving to these facts his justification, and trusting his superiors to form correct conclusions. Such a course is bound to give him the advantage and create or promote a favorable impression of his character.

Difference of opinion is as natural as difference in the disposition, character, judgment, intellect and ability of members of the human family. There is therefore no occasion for a feeling of irritation, displeasure or discomfort in encountering difference of opinion. There may be ample occasion for regret, but this regret should not be permitted to degenerate into animosity or antagonism.

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So much depends upon the neat and correct appearance of officers, that too much attention cannot be given to neatness of attire.

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A good officer is patient, just, and reliable, ambitious to acquire knowledge, conscientious in the performance of duty, possesses a high sense of honor, pride in the service, and confidence in his ability to perform the tasks assigned him. A young officer must acquire a reputation for worth before he can afford to run risks with his military fortune, and even the oldest and most distinguished officers cannot persistently indulge in vices without becoming bankrupt in reputation, in spite of former triumphs and successes.

Excessive drinking and gambling are habits that every officer should avoid. If avoided in youth, they will never

be acquired with age. Both these practices will be prohibited at this school and college, and no officer need expect to indulge to excess in either without receiving correction. Even a moderate indulgence in gambling and drinking will keep one's finances always in a state of pressure. We should endeavor, no matter what our habits, at least to measure our expenses by our pay.

* * * * *

We desire to say a word as to financial ethics. The standard of the army is high, and it is to the interest of every officer to keep it so. Credit is freely extended to officers, on account of connection with the military service, which might be refused the same individual if not so connected. Such credit is an honor to the service and a valuable asset to every officer. It cannot long continue if persistently abused by some officers. Owing to exigencies of the service and unexpected calls for expenditures, which are liable to arise in the careers of all officers, it is, unfortunately, not always possible to avoid debt. But an officer who is conscientious and scrupulous in the discharge of financial obligations can always borrow sufficient money to meet his debts when due, unless he spends his time and salary in extravagant and riotous living.

* * * * *

The custom which is quite universal at this post, of officers saluting each other as they pass, has been observed with much pleasure. It may seem queer that a thing which has always been required by the spirit of orders and regulations should be mentioned as an agreeable custom, but during a very considerable length of service I have never seen this custom so universally observed as it is in this post at the present time. I belonged to the army nearly twenty years before I ever saw two officers salute each other, except when they were not on speaking terms.

The habit of saluting is military, and when officers practice it very generally among themselves soldiers will cease to consider it demeaning, and practice it more cheerfully.

* * * * *

In conclusion, it is desired to invite your attention to a

very practical question. The records of post headquarters from September 1, 1902, to September 1, 1903, have been gone over, and, though the search has not been entirely thorough, it is found that something like 300 communications were returned from higher authority, for correction or further information, and about 360 were returned from post headquarters to officers of the garrison, for similar reasons. Nearly twelve per cent. of all communications passing through the office had to be handled several additional times because officers had not been sufficiently careful or efficient in preparing them in the first place. It was found that nearly one-third of all boards of survey needed correction of some kind. It is not difficult for any one to understand the amount of additional labor and annoyance that was involved in securing corrected information in these cases. Nor is it difficult to imagine how much time and trouble would have been saved had all been careful and accurate in complying with orders in the first place.

It is considered advisable to impress upon all the importance of care and accuracy in paper work, and an effort will be made to do so. Though it is not well to be exacting with officers whose unsatisfactory preparation of papers may reasonably be assigned to excusable ignorance, evident carelessness and indifference should not be tolerated. Perhaps the most fruitful cause of inefficiency in administrative work is the indifference of officers, and their failure to read orders with sufficient care fully to understand and digest their requirements.

THE FOURTH CAVALRY WITH GENERAL LAWTON* IN LUZON.

BY CAPTAIN GEORGE H. CAMERON, FOURTH CAVALRY.

AT the outbreak of the war with Spain, April 21, 1898, the officers of the Fourth Cavalry and the stations of its troops were as follows:

OFFICERS.

Colonel, Charles E. Compton.

Lieutenant-Colonel, Louis T. Morris.

Majors, Sanford C. Kellogg, Louis H. Rucker, Jacob A. Augur.

Adjutant, First Lieutenant Cecil Stewart.

Quartermaster, First Lieutenant Geo. H. Cameron.

Troop A—Captain, Alexander Rodgers; first lieutenant, Floyd Harris; second lieutenant, James N. Munro.

Troop B—Captain, James Parker; first lieutenant, vacancy; second lieutenant, William R. Smedberg, jr.

Troop C—Captain, George H. G. Gale; first lieutenant, John M. Neal; second lieutenant, Thos. G. Carson.

Troop D—Captain, Joseph M. Dorst; first lieutenant, George O. Cress; second lieutenant, Hamilton S. Hawkins, jr.

Troop E—Captain, Hugh J. McGrath; first lieutenant, Charles P. Elliott; second lieutenant, LeRoy Eltinge.

Troop F—Captain, Charles A. P. Hatfield; first lieutenant, Robert D. Walsh; second lieutenant, Lucius R. Holbrook.

*Henry Ware Lawton: Transferred as first lieutenant from Twenty-fourth Infantry to Fourth Cavalry January 1, 1871; regimental quartermaster May 1, 1872, to March 20, 1875, and September 1, 1876, to March 20, 1879; captain March 20, 1879, to October 2, 1888; major inspector-general October 2, 1888.

Troop G—Captain, Fred Wheeler; first lieutenant, Robert A. Brown; second lieutenant, James S. Parker.

Troop H—Captain, James B. Erwin; first lieutenant, Thomas H. Slavens; second lieutenant, Frederick T. Arnold.

Troop I—Captain, James Lockett; first lieutenant, James E. Nolan; second lieutenant, Charles T. Boyd.

Troop K—Captain, Harry C. Benson; first lieutenant, Louis C. Scherer; second lieutenant, Samuel McP. Rutherford.

Troop L—Captain, Cunliffe H. Murray; first lieutenant, Samuel G. Jones, jr.; second lieutenant, Edward B. Cassatt.

Troop M—Captain, Wilbur E. Wilder; first lieutenant, John A. Lockwood; second lieutenant, Elmer Lindsley.

Veterinarian, Alexander Plummer.

Stations.—Headquarters, band and Troops A and G, Fort Walla Walla, Wash.; Troops B, C, I and K, Presidio, San Francisco, Cal.; Troops D and H, Fort Yellowstone, Wyo.; Troop E, Vancouver Barracks, Wash.; Troop F, Boise Barracks, Idaho.

The colonel was in active command of the regiment; the lieutenant-colonel, of the squadron at the Presidio, and the second major, of the two troops at headquarters.

The senior major was military attaché to the Minister to France, and the junior was on duty as assistant commandant at the School of Application at Fort Leavenworth, Kansas.

Of the captains and lieutenants, without specifying their different duties, it will be sufficient to state that seventeen were away from the regiment, leaving but twenty for duty with troops.

The outlook of the regiment for active service was most discouraging. Stationed the farthest west of the cavalry regiments, only the unexpected in Cuba would give it a chance at the front. As a natural consequence, those of the officers who were on the spot, secured appointments in the line and staff of the rapidly organizing State Volunteers.

Captains Dorst and Parker, Lieutenants Slavens, Cassatt, Scherer and Smedberg were attached to the volunteers in

May, Captain Wilder and Lieutenant Brown in June, Captain McGrath and Lieutenant Benson in July, and Captain Rodgers in December. Colonel Compton was appointed brigadier-general of volunteers and assigned to the command of the First Brigade, Second Division, Third Army Corps. On May 12th he left for Chickamauga Park, Ga., taking with him as aide the regimental adjutant, Lieutenant Stewart.

In the meantime, under the provisions of G. O. 27, A. G. O., of April 27th, the enlisted strength of troops was increased to one hundred men, and the two skeletonized troops, L and M, were reorganized. To effect this latter step, five experienced men were ordered transferred from each troop. These fifty men were selected by troop commanders with such care and regimental esprit that L and M returned to harness with as efficient a set of noncommissioned officers as could be desired. By the 7th of June, all troops except the two at Yellowstone Park were recruited to full strength. The recruits were mostly from the East, mere boys, adventurous spirits enlisted for the war. They had been obtained under hurry orders, fell far below the average in brains and physique, and chafed under the usual "licking into shape."

Admiral Dewey's victory in Manila Bay and his call for troops to hold the islands changed the whole situation, for, by the shifting of the scene of action, the regiment, from the last, suddenly became the first available, and grumbling gave way to rejoicing.

Concentration of forces, both regular and volunteer, promptly began. Organizations, on arrival in San Francisco, were reported to Major-General Wesley Merritt, U. S. Army, who, as fast as he could obtain transports, dispatched these "expeditionary forces" to Manila, sailing himself with the third expedition, and being succeeded in charge of the concentration by Major-General E. S. Otis, U. S. Volunteers.

The field, staff and band arrived from Walla Walla on June 6th, Troop G from the same station the following day, and Troop E from Vancouver Barracks June 19th, reporting at once at the Presidio.

On June 14th, Troops C, I, K and L were relieved from post duty at the Presidio, were assigned to the First Brig-

ade, Division of the Pacific and Eighth Army Corps, and went into camp to prepare for departure.

Several changes in the officers had now taken place. The regimental quartermaster, Lieutenant Cameron, upon arrival from Walla Walla, was appointed adjutant, and was succeeded as quartermaster by Lieutenant Nolan. Major Kellogg joined and was placed in command of the six troops. Captain Murray and Lieutenant Elliott reported for duty. The latter had been on leave of absence awaiting retirement for disability, but, with customary gameness, succeeded in obtaining permission to join. First Lieutenant E. B. Winsans, Jr. (promoted to the regiment and on duty with State troops), was assigned to the vacancy in Troop B and later exchanged to C with Lieutenant Neall. Lieutenant Jones transferred to the Fifth Cavalry with First Lieutenant W. E. Almy, who never joined. Lieutenant Lindsley was promoted out of the regiment and was succeeded by Second Lieutenant Malin Craig. On July 1st Lieutenant Cameron resigned the adjutancy and was succeeded by Lieutenant F. W. Harris.

The problem of mounts for the cavalry was most perplexing. Sea transportation was scarce for even the men, while many believed that the long trip to Manila could not be made by animals. General Anderson had cabled from Hong Kong that Chinese ponies would prove satisfactory, but, needless to say, cavalry officers were loth to be separated from their American horses. Finally, General Otis determined upon an experiment, and ordered the fitting up of a sailing ship, the *Tacoma*, as a horse and mule transport. Lieutenant Cameron and Veterinarian Plummer were placed in charge of the vessel, and to them were turned over ninety horses selected from the youngest and toughest animals of the squadron.

The remaining horses were reluctantly surrendered to the post quartermaster. On the 14th of July the six troops of "foot dragoons" broke camp and marched to the city, embarking on the transport *Peru*, formerly a liner of the Pacific Mail Steamship Company.

The personnel of the sailing squadron follows:

Major Sanford C. Kellogg, commanding; Major Louis H. Rucker, duty; Second Lieutenant Charles T. Boyd, adjutant; Second Lieutenant LeRoy Eltinge, quartermaster. Troop C, Captain G. H. G. Gale; Troop E, First Lieutenant Charles P. Elliott; Troop G, Captain Fred Wheeler, Second Lieutenant J. S. Parker; Troop I, Captain James Lockett; Troop K, Second Lieutenant Thos. G. Carson; Troop L, Captain C. H. Murray.

General Otis, with his staff and the two light batteries of the Sixth U. S. Artillery, were also on the *Peru*, while on the *City of Puebla*, which kept company on the voyage, were the headquarters and five companies of the Fourteenth U. S. Infantry. The two ships sailed July 15th, reaching Honolulu July 23d. Here it was learned that there was no protection for American interests. The islands had just been declared territory of the United States, and, as an uprising of the native element might occur, it was decided to await the arrival of the U. S. Cruiser *Philadelphia*, then on the way from San Francisco for the flag raising.

Eleven days elapsed before the voyage was resumed. During the voyage, Captain Murray was appointed Military Secretary to General Otis, Lieutenant Parker falling heir to the command of L Troop. When Manila Bay was reached, on August 21st, and the news was brought aboard that the city had surrendered to our troops eight days before, the chagrin can be readily imagined. On August 22d the six troops were disembarked at Cavite and quartered in the Spanish Marine Barracks just outside of the Arsenal.

About the first report of the situation was to the effect that the Filipino forces that had assisted in the capture of Manila were concentrated around the city, General Merritt having refused permission for them to enter the Walled City after its capitulation. There existed, in consequence, a growing mutual mistrust between the American and Filipino forces. This mistrust was promptly instilled into the officers and men of the squadron, and even fanned into actual enmity by an occurrence of the 24th.

Two privates of the Utah Light Battery, on pass in the town of Cavite, had filled up with the native *vino*. Their

money exhausted and having been refused more liquor, one man proceeded to give a touch of Western America by discharging his revolver through the roof of the "joint." The frightened proprietor rushed into the street and reported the affair to a Filipino lieutenant who was passing with a patrol of six men. Without further investigation the officer lined up his men, and, as the two Americans emerged into the street, ordered a volley. Both men dropped, one dead, the other mortally wounded. The alarm was given and the squadron turned out with a rush. Advancing by troop through parallel streets toward the Filipino headquarters, Troop C was soon fired upon and two men were wounded in the thigh—Privates Thomas E. Langdon and Fredrick Nachbar. In the narrow street, only the point could return the fire, but the four men as they rapidly advanced gave such an exhibition of marksmanship that a Filipino lieutenant soon appeared with a white flag, and was followed by one of Aguinaldo's aides. After a lengthened parley the troops were marched back to barracks and were soon followed by Aguinaldo himself. In reply to a demand for the lieutenant in command of the patrol, Aguinaldo pledged himself to have the offender shot at daybreak of the following day. Several volleys were indeed heard next morning, but from natives it was afterwards learned that there was no victim at the ceremony.

Smarting under this outrage, and restless from inactivity, the squadron was moved on September 9th to the suburb of Paco and quartered in the huge tobacco factory. Here began a five month's tour of duty that undoubtedly tested endurance and discipline more than any period of Philippine service. At first the sentinels of our outposts at the Paco Bridge and on the Singalon Road, walked side by side with Filipino sentinels. Two companies of native troops were quartered in the Bishop's palace and one on the Singalon Road inside of our lines. This absurd state of affairs lasted until October 25th, when, yielding to General Otis's persistent demands, Aguinaldo ordered his troops withdrawn. Outposts were then established at Blockhouses 12 and 13, and on the so-called Battery Hill. As these points

were remote from the barracks, connecting and interior patrols were necessary. In consequence, for over three months the men had consecutively twenty-four hours' outpost, followed by twenty-four hours' patrol, with only twenty-four hours off duty, the last consumed entirely in catching up on sleep. This severe work was aggravated by the conduct of the imbecile Filipino soldiers. Mistaking the determined American policy of conciliation for one of timidity, they jeered our sentinels and in the filthiest language conceivable dared the "coward" outpost to fight. Too much praise cannot be given to our seasoned noncommissioned officers for their successful restraint of impulsive recruits. The latter could not understand orders that required them to swallow insults for which they would fight at home. Although at this time the sick report was not large, the strain and the climate were exhausting the men to such an extent that they sickened rapidly when actual campaigning began.

From the time of arrival, it had been evident that Major Kellogg would be unable actively to command the squadron. He was therefore retired by cable order from Washington on September 23d, Major Rucker assuming command. Lieutenant Elliott's retirement for disability was published in War Department Orders of July 29th, while he was at sea, the notification reaching him two months later. The keen regret with which he relinquished active duty was shared by his devoted comrades.

On October 3d, Lieutenant Eltinge succeeded him in command of Troop E, and on November 11th, an exchange in the command of Troops E and G was ordered, Captain Wheeler returning to his old organization.

In the States, Lieutenant-Colonel Morris, who had been retired at the Presidio on July 22d, was succeeded in command of the regiment by Lieutenant-Colonel Henry Wagner. Major Kellogg's vacancy was filled by Major Charles Morton, assigned to the command of Fort Walla Walla.

On December 5th, the regimental quartermaster, First Lieutenant James E. Nolan, died of pneumonia at the Presidio. His loss was a severe blow to officers and men, for aside from his efficiency and his manly sterling traits,

"Nick" was undoubtedly the most popular man in the regiment. He was succeeded by Lieutenant Slavens. Except those cited above, there were no changes in the troops at home during the year.

Major-General Anderson, U. S. Volunteers, commanding the First Division, had displayed much interest in obtaining a mount for the cavalry. His efforts were continually met with the familiar cry of "expense," but he persisted until, on January 1, 1899, Troops I and K, each received seventy-seven native ponies. These little animals averaged twelve hands and weighed only about 700 pounds, but turned out to be wiry, plucky and easy-gaited. Under a long-legged trooper they certainly presented a droll sight. First Sergeant Balch, of L Troop, who stood six feet three inches, frequently stepped directly over them, and when a drowsy trooper dropped his brush on the other side in grooming, he simply leaned over the pony and picked it up. Saddle-bags actually buried them from view, and the haversack was substituted. Cinchas were shortened about six or eight inches.

Fortunately no bronco training was necessary, and inside of three days mounted squads were scurrying about performing the patrol work. This was a great relief to the men, particularly so, since the troops on the 1st and 2d of January had been moved into the Exposition buildings in Ermita, a full mile further away from their outposts.

On January 12th, Major Rucker divided the six troops into two squadrons; the First, E, I and K, commanded by Captain Wheeler and known as the mounted, and the Second C, G and L, commanded by Captain Gale and known as the dismounted squadron.

Captain Lockett was detailed January 16th on staff duty with the Second Division, and the last available subaltern, Lieutenant Boyd, succeeded to the command of Troop I. Six troops with only six officers!

The first trip of the *Tacoma* turned out disastrously. The condensing plant supplying drinking water was not equal to the demand, and broke down, necessitating a stop at Honolulu, contrary to the original plan. When the ship reached that point, on August 19th, the protocol of the treaty with

Spain was in force. General Merriam, in command of the U. S. forces, ordered the animals, forage and transportation unloaded, both to comply with the terms of the protocol as he interpreted it and to supply the needs of the 3,000 troops in camp at Waikiki. The ship was ordered back to San Francisco to await further instructions.

The feasibility of transporting animals had, nevertheless, been clearly demonstrated, as only four out of 210 died on the trip, the remainder stepping ashore in good condition. The *Tacoma* reached San Francisco October 3d. Lieutenant Cameron having been ordered to West Point for duty, First Lieutenant John O'Shea was placed in charge, with orders to refit, reload and sail again. Extensive repairs and alterations in machinery delayed the departure until December. She picked up at Honolulu the original cargo of animals and transportation. The voyage to Manila consumed sixty-eight days, but the stock was landed in excellent shape, the mules and transportation turned over to the chief quartermaster, and eighty-one of the original ninety horses, assigned on March 3d to Troop E. The first appearance of the army mule and "caballos grandes" in the streets of Manila produced a great sensation among the natives.

During the month of January the aggressiveness of the Filipinos increased steadily. They could be seen digging trenches and throwing up works, which practically placed our forces under siege. Their bravado and insults were now manifestly directed to provoke the first fire from the Americanos who were then to be "rushed into the Bay." In spite of all efforts to prevent it, their scheme succeeded on the night of February 4th, when one of our sentinels on the north line fired upon a Filipino in uniform who deliberately crossed the sentinel's post and refused to answer the challenge.

The shot brought a volley from the Filipino lines with a promptness that would have convinced the most skeptical. The volley was answered, and irregular fire continued most of the night. At the first alarm, given by a gun in the Walled City, the squadron, which had been sleeping under arms and fully dressed, was set to work patrolling the

streets as far as the river to prevent any uprising in the city. Captain Wheeler with his troop (E) was on outpost holding Block Houses 12 and 13. Only a few straggling shots came in from the south during the night, but at daybreak the insurgents, from their intrenchments, began to pepper the outposts and sweep the streets. All along the line subordinate commanders begged to be allowed to attack. At 8 A. M. General Anderson received the coveted permission. The "cowards" were turned loose, sweeping the stampeded insurgents out of their trenches and works, through swamps and paddy fields, into the river or back to the hills. In our immediate front, dense underbrush made progress slower, and also gave confidence to the insurgents, who here put up the most stubborn fight of the day. At length General Ovenshine ordered the troops on our right to make a turning movement, which proved too much for Filipino morale, and away they went. They were steadily driven farther and farther away from the city until about 4 P. M., when our forces were recalled to the line originally designated, *i. e.*, the road from San Pedro Macati to Pasay, on which outposts and supports were promptly stationed. Troops C, E and L, under Major Rucker, participated in this movement, the others continuing the patrol of the interior streets and communications.

The vim and dash of the American troops, coupled with the heavy Filipino losses on all sides, produced a demoralization among the insurgents from which they did not recover for several days. This time was utilized in strengthening our new position with trenches. On the night of February 9th Major Rucker received orders to report with three troops to General MacArthur, beyond Tondo on the north line, as a support to the Twentieth Kansas Volunteers. The distance from Pasay to the point finally designated was only about eleven miles, but before the command, groping about in the inky blackness, succeeded in finding the General and afterwards their place on the firing line, it was 4 o'clock in the morning, and they had marched over twenty miles. C, E and G participated in the battle of Caloocan the following day (the 10th) and returned to the First Division on the 12th.

The Fourth Cavalry seemed to be regarded as seasoned timber in the line of "chasseurs à pied," marching about as general utility and filling gaps when positions of troops were changed.

On the south line, between the 10th and 16th, I, K and L made daily reconnaissances around Parañaque, where the enemy was concentrated in strength. The scouting generally brought on skirmishes, in which several horses were lost, but the men escaped injury until the 15th, when Private Ralph Wintler, K, was severely wounded.

The American preparations to advance northward along the railroad caused the concentration of all available insurgent forces on that side of the city, so that a season of quiet outpost and patrol duty ensued for the Second Squadron. C, G and L remained in front of Pasay until April 8th, officers and men sleeping and messing in the trenches.

In order to supply food for the native population of Manila, it became necessary to open up the Pasig River to the commerce of the lake (Laguna de Bay) districts. American garrisons at the head of the river would also cut the insurgent line of communications between Cavite and Bulacan Provinces. Accordingly early in March an expeditionary brigade under General Loyd Wheaton was organized, consisting of the Twentieth and Twenty-second Infantry, parts of the Oregon and Washington Volunteers, a section of artillery and the First Squadron of our regiment, Troop E being at the time mounted on its American horses. Lieutenant Rutherford joined from the States on March 2d, and assumed command of K, Lieutenant Carson taking up the duties of adjutant of the cavalry command.

Between March 10th and 17th, this brigade engaged and routed the insurgents at Guadalupe Ridge, Pasig, Pateros, Cainta and Taguig. In the advance on Pateros, March 14th, Troop E, which had the advance, was fired upon while crossing a ravine. The troop was quickly dismounted, and, after a lively fight, drove off the enemy, but not without considerable loss. Saddler Samuel Jones was killed, Captain Fred Wheeler was shot through the left hand and Privates Michael Good, George B. Parks, Horace H. Smith and Ernest Wilcox

were wounded. After garrisoning the towns of Pasig, Pateros and Taguig, the brigade was broken up and the squadron resumed patrol work from the Exposition barracks in the city. First Lieutenant Matthew A. Batson, who had been promoted to the regiment vice Elliott, joined Troop E March 20th. Transports sailing from the States carried, in addition to troops, large cargoes of quartermaster's and commissary stores, and some subaltern en route to join his regiment was picked up at San Francisco and detailed in charge. Lieutenant Batson, on the *Ohio*, was the first of many officers of the regiment to serve as transport quartermaster and commissary.

On March 24th the First Squadron was again attached to the Second Division and took part in the advance and engagements resulting in the capture of the insurgent capitol at Malolos. Blacksmith Rankin S. Nebinger (I), Privates Leroy Grundhand (E), and John Cotter (K), were wounded in skirmishes near LaLoma Church on the morning of the 25th. E Troop's fight on the same day well illustrates the obstacles overcome by American troops in Filipino engagements, and, as General MacArthur has termed it "a brilliant affair," it is described more at length.

When General MacArthur, commanding the division, approached the Tullihan River, Major (now Brigadier-General) J. F. Bell reported an insurgent force at the road crossing and requested a reconnoitering patrol. The General ordered Captain Wheeler to dismount half of his troop for the work. The insurgents, after destroying the bridge, had constructed between the wing walls on the north end a strong barricade, topped by an I bridge girder for a head piece, and leaving a horizontal opening just large enough to permit the firing of their Mausers. Further, to guard the crossing, they made two trenches on the river bank, about fifty feet long and about one hundred yards from the barricade on either flank. They also occupied a stone boiler house between the bridge and the western trench. Each trench had a head protection of bamboo and earth. The stream itself was about ninety feet wide with perpendicular banks over twenty feet in height. Against this formidable position, held by one hun-

dred insurgents, Captain Wheeler advanced with Lieutenant Batson and twenty-three troopers. Making good use of cover, the men crawled close to the south bank and opened fire on the west trench, the only part of the position that had been located. The tremendous fire received in reply revealed the whole position. A small detachment was sent to attend to the barricade, and Major Bell hastened back for reinforcements. A few well directed artillery shots (fired under his supervision) stampeded the insurgents, and in spite of their numbers, they fled pell-mell, our men, after fording the stream, being too exhausted to follow up their advantage.

Private William E. Tufts was mortally wounded; First Sergeant Alexander H. Davidson, Quartermaster Sergeant Charles Hiatt, and Private Harry A. Howe, were severely wounded; and Saddler Samuel H. Evans and Private Charles Rice slightly wounded in this encounter; but five dead Filipinos, two of them found behind the barricade itself, and many wounded carried away by their comrades, gave proof of E Troop's deliberate marksmanship. Captain Wheeler was still suffering from his wound of the 14th, and should properly have been on sick report. Major Bell's official report states:

"The small cavalry detachment of six men, firing at the barricade, had made ninety hits on the steel beam, besides those they put through the slot. The fire from the barricade had been entirely silenced for some time. * * * Though the coolness and courage of all the officers and men concerned was most admirable, I was especially impressed with the fearless imperturbability of Captain Wheeler, coolly directing the fire of his men and keeping them under cover. I do not know how a better example of courage could have been shown than that displayed by him as he stood exposed, trying to show a private just where an insurgent was concealed across the river. Just then a bullet struck the private in the head, splattering blood on the Captain as he fell. Quietly giving orders to have the poor fellow removed to the rear, he went on with his business. * * * I heard Lieutenant Batson say to a young soldier, who did not seem to see anything to shoot at, 'Here, if you are not going to use your gun, give it to me, I can see them,' and suiting his action to his words, he took the gun and began

to fire from an erect position with very deliberate aim while the bullets were whistling all around."

After the occupation of Malolos, the squadron was assigned to station in the town and was used for scouting work for nearly a month.

The turn of the dismounted squadron came early in April, when General Lawton was given about 1,500 men, with orders to capture a number of launches and cascós carrying on contraband trade on the Laguna de Bay in the neighborhood of the strongly entrenched town of Santa Cruz. The force was concentrated at San Pedro Macati on the afternoon of April 8th, and at once embarked on cascós towed by three of the American converted gunboats and several small steam launches. Progress up the shallow river at night was difficult and slow, but once the lake was reached the fleet proceeded rapidly. The infantry, consisting of a battalion each from the Fourteenth, the Idahos, North Dakotas, and Washingtons, were safely landed by 4 P. M. of the 9th at Pila, about three miles south of Santa Cruz. They developed strong resistance as soon as they started to move out, causing a loss of so much time in deploying and flanking that they bivouacked for the night, while General Lawton with our squadron and the gunboats continued across the lake and came to anchor directly in front of the city. At 6 o'clock next morning our men waded ashore without difficulty, although the insurgents could be plainly seen only 600 yards away in commanding trenches. They were apparently well disciplined troops, confident of easy work. The Filipino bugle sounded the "Attention" and "Commence Firing" only after our men were completely deployed and advancing. Captain Gale dropped his men, ordered a few platoon volleys, and then began the advance by rushes. When within one hundred yards of the trenches, sharp firing from the southwest showed how well General Lawton's scheme had worked out. The infantry had successfully trapped the garrison, leaving only one avenue of escape over a low flat northward. As the insurgents plunged across the open in disordered flight, they were practically annihilated by the Gatlings and Colts on the gunboats.

One hundred and twenty-three killed and wounded of the enemy were picked up for burial or hospital care; twenty-six dead bodies lay in the trenches, exactly one-half of this number in our immediate front. The total American loss was three killed and five wounded. Private Joe Grabowsky (C) died on the 15th from his wound in the action. Lieutenant Eltinge was slightly wounded in the hand.

Captain Gale, Lieutenants Eltinge and Parker were each recommended by General Lawton for a brevet. First Sergeant Edward T. Balch (L) was recommended for a commission in one of the new volunteer regiments (he was subsequently commissioned) for "advancing alone within thirty yards of the enemy by wading river at Santa Cruz and shooting insurgent officer rallying enemy."

One small gunboat with a Nordenfeldt and a Hotchkiss gun, five steam launches and two cascos were discovered in the river at the town of Pagsanjan, about four miles further up the lake, when the town was seized on the 12th. After much hard work the boats were hauled over a bar at the mouth of the river, the expedition returning April 17th to Manila.

General Lawton was immediately placed in command of another independent column, the object of which was to relieve the pressure in front of General MacArthur, allowing him to advance up the railroad. The main body of the column, consisting of the Twenty-second Infantry, eight companies Third Infantry, eight companies North Dakotas, our dismounted squadron, Hawthorne's two mountain guns, and Scott's platoon of D, Sixth Artillery, assembled at La Loma Church April 22d. The remainder, consisting of eight companies Oregons and eight companies Minnesotas, with Troop I, mounted, assembled a day later at Bocave to bring a part of the train with rations and supplies. The objective was Baliuag, the main column to advance by way of Novaliches, San José, and Norzagaray, at which place the two parts of the column were to unite.

The Second Squadron was detailed as provost guard with Captain Gale as provost-marshall, orders assigning them as rear-guard on the first day's march.

Starting early April 22d, Novaliches was occupied before noon after sharp fighting in capturing successive insurgent positions along the road. The hardest work in the column was with the train of carabao carts. Many heat prostrations occurred. On the next day the road developed into a mere trail and eventually disappeared, the march continuing across country, through marshes and bamboo thickets and across foot-hills and mountain streams. The progress of the carts was hardly appreciable, two whole days being consumed in making the six miles to San José. The carabaos proved of little value in the hilly country. In rice fields where they may frequently submerge their bodies in water and mud, they are able to keep down the tremendous heat oppression from which they suffer. In order not to block the train the men cheerfully pulled and pushed the heavy carts while the animals rested.

At San José, Lieutenant Boyd with I Troop arrived on the afternoon of the 24th, reporting the Bocave column at Norzagayar. They had met with little opposition until they reached the bluffs near the town late on the 23d. Their whole force was deployed, but darkness came on before the town could be gained. Next morning before 7 o'clock, the garrison had been swept out and chased far into the hills. Private William Herr (I) was slightly wounded.

With the Bocave column arrived several mules and escort wagons, off the *Tacoma*, the first home transportation used in campaign in the Philippines.

The 26th of April found the whole column at Norzagayar with advance at Angat. On the day following, General Lawton with his command concentrated at Angat, was put in telegraphic communication with Manila, and received orders to remain where he was. His advance had produced the desired effect. Uncertain as to his objective, the insurgents were obliged to move to offer opposition to a possible flank attack, and General MacArthur pushed forward. Before moving he had scouted his front, K Troop running into a bad hole on the 23d while on reconnaissance with that indefatigable information gleaner, Major Bell. With the object of ascertaining the enemy's strength at Quingua,

the troop set out at 3 A. M. from Malolos, locating at day-break three trenches covering the main road. To develop the full position, the troop was dismounted and moved in line of skirmishers out into the open in front of the trenches. There was no delay on the part of the enemy. Fierce volleys swept through the men, Corporal John Golumbeski (K) being killed almost at the first fire.

When the insurgents saw his body carried to the rear, they poured in a concentrated fire on this good target, wounding two of the bearers, and then, emboldened, assumed the offensive, advancing on the flanks to surround the troop. Lieutenant Rutherford skillfully withdrew his men, platoon at a time, reached his horses, mounted, and brought off his killed and wounded. Meanwhile, attracted by the heavy firing, a battalion of the Nebraskas and one of the Iowas appeared and engaged the enemy, but the position was not carried until General Hale arrived with the remainder of the Iowas and Nebraskas and four guns of the Utah Battery. Even then the American loss was four killed and thirty-one wounded. Among the killed was that gallant cavalryman, John M. Stotsenburg, captain Sixth Cavalry, who had made a name as colonel of the Nebraska Volunteers. K Troop had two casualties in the second advance. In addition to Corporal Golumbeski, Privates William B. Jackson and William K. Skinner, both of Troop I (two of Major Bell's picked scouts), were killed, and Trumpeter Charles Powers, Privates Michael Cary, John O'Connor, Edward Quinn, and Ralph Wintler, all of K, were wounded. Major Bell, in his report, says: "Lieutenant Rutherford of the Fourth Cavalry, who was in command of Troop K, was cool and collected and handled his men in a most admirable manner. By his coolness and courage he rendered me very great assistance and extricated his troop from a most difficult position. I would recommend that he be given such credit as is due exceptional gallantry under fire."

General Lawton's command, which had been held by the department commander to see which way the enemy would retire, resumed its march on May 1st. The General, while at Angat, selected Troop I for his personal escort. This

troop was with him in all of his subsequent campaigning. The march to Baliuag was made with a column on either side of the Quingua River, the right column developing stiff resistance, with a few casualties in the capture of San Rafael, where camp for the night was made. On the next day, at noon, the scouts of the right column were in possession of Baliuag. There had been skirmishing all the way from San Rafael, the enemy falling back in great numbers and retreating towards San Miguel. Captain Gale, with his squadron and Troop I, was sent out to endeavor to cut them off. After marching rapidly for three miles he encountered what appeared to be the rear-guard of the insurgent force in a strong position. The flanking and routing of the enemy left Captain Gale's command absolutely incapable of proceeding further; twenty-one men had fallen from heat exhaustion, eight of them in a comatose condition. After a sufficient rest, he returned slowly across the country to Baliuag.

Further dispatches from Manila held the command in this town for a week, during which the provost guard was busy distributing to the starving natives the immense stores of rice and sugar captured in the town. Lieutenant Stewart joined from the United States May 10th, and assumed command of Troop I.

Permission to advance announced San Isidro as the next objective. Anticipating serious opposition at Ildefonso, a reconnaissance party, consisting of the picked scouts, supported by a company of infantry, was sent out on May 12th to feel the place. The first news from this party was that it had fought its way into the town and held it. A garrison was promptly sent out. The same program was followed out the next day, resulting in the capture of San Miguel. The city had a garrison estimated at 300 men; nevertheless, a mere handful of scouts dashed across a bridge into the city, under a galling fire, and put the insurgents to flight. The pluck of these men earned for the eleven survivors a recommendation for congressional medals of honor. Three of them were Privates Eli L. Watkins (C), Simon Harris (G), and Peter Quinn (L).

By the 15th the column had come up. After a day's

scouting into the mountains east of this town the march was resumed and San Isidro captured on the 17th, with only slight casualties, Privates Harris and Quinn being again specially commended for bravery.

The body of scouts, selected for coolness, intelligence and frontier experience, had demonstrated their ability in Filipino warfare. Where the ordinary detailed advance-guard would have delayed the column for a deployment, these resolute men brushed resistance aside, or, if it was too strong for them, had the situation well estimated for the commander of the supporting troops upon his arrival. The scouts became a feature of all subsequent operations.

Two columns were concentrated on Gapan, May 18th, as the insurgents were reported in force. The capture proved an easy affair, the squadron returning to San Miguel the same afternoon. At retreat on the 19th, the following telegram was published to all organizations of the command:

"HOT SPRINGS, VA., May 18, 1899.

"*Otis, Manila:*

"Convey to General Lawton and the gallant men of his command, my congratulations upon their successful operations during the past month, resulting in the capture this morning of San Isidro.

"WILLIAM MCKINLEY."

May 21st, the squadron marched back to Baliuag to strengthen the garrison, reported from Manila as in danger of attack. General MacArthur's column had been depleted by the necessity of holding his long line of communications as he advanced up the railroad. He had many sick and worn-out men, and the rainy season was close at hand. From Washington came orders to return the State volunteers without delay. In the face of such conditions General Otis decided that a further advance was not feasible, and General Lawton's independent column, after capturing Arayat in General MacArthur's front, was broken up and the troops distributed to stations. The Second Squadron marched across to Malolos and thence proceeded, on May 27th, to Manila by rail. Troop I marched in, arriving the same date.

Troops E and K continued their arduous escort and reconnaissance work with the command along the railroad. On May 23d, while both troops under Major Rucker, accompanied by Major Bell and his scouts, were out on reconnaissance, the enemy was developed in force near the town of Santa Rita. The command was deployed, driving off the enemy after a sharp fight, lasting half an hour, in which Privates Joe Costello, Hans Matheson and Thomas J. Turner, all of K, were wounded. Major Rucker's orders were to avoid an engagement, and he accordingly withdrew to San Fernando as soon as the insurgent fire had been silenced.

Second Lieutenants Ward B. Pershing and Charles S. Haight, recently appointed, reported for duty from the States and were assigned to C and L, respectively.

The department commander appeared always to have on hand a piece of work in which General Lawton's push and pluck were essential. Returned to Manila, he was immediately assigned the task of clearing the Morong Peninsula (*Laguna de Bay*), where Pio del Pilar had become too aggressive. Our four troops, indulging in dreams of rest, were turned out at 8 o'clock on the evening of June 2d, in severe fighting trim and with cooked rations for one meal. The pumping station was reached at 11 P. M. Here they joined General Hall's brigade, consisting of two battalions Fourth Infantry, one battalion Ninth Infantry, six companies Colorados, eleven companies Oregons, one battalion Wyomings, and Hawthorne's Mountain Battery. General Lawton also controlled another column consisting of a battalion of Twelfth Infantry, the North Dakotas, and eight companies Washingtons, which was to coöperate in an endeavor to bag the enemy. The troops passed a trying night in bivouac. No fires were permitted, and a cold rain fell incessantly. The start for Antipolo was made at 5 o'clock A. M., June 3d, before the command could finish breakfast. The Fourth Cavalry was assigned to the advance. It is a curious fact that as long as the squadron was dismounted, we were generally fortunate enough to draw the leading position (probably because we were called "cavalry"). Yet after our troops were mounted, we spent months doing infantry

work, escorting bull-trains, moving at a gait utterly ruinous to horses.

Fording the Marquina River, General Hall's column moved across the submerged rice fields of the valley. As soon as the foot hills were reached, skirmishing with the enemy began, and from about 11:00 o'clock until dark a continuous fight was kept up by the advance-guard. Much time was lost in crossing swollen streams. At about 4 o'clock P. M., while laboriously pushing ahead, the advance received a heavy converging fire at a point where the trail ran through a pocket in the hills. The enemy in strong force on three hill-crests had a position from which they were dislodged only after the whole column had been brought up and deployed. During this time our troops had suffered severely. Quartermaster Sergeant Seth Lovell (C) and Quartermaster Sergeant Benjamin Craig (I) were killed. Privates Patrick Branigan (C), Robert E. Miles (C), Melville L. Daly (G), and Maurice Coffield (I), were all severely wounded, all except Coffield dying within the week.

Night was now coming on, and orders to camp on the field left our exhausted men without rations or coffee. Another wretched night ensued. Next morning the advance was resumed with alacrity. An empty stomach talks more directly than patriotism. Little resistance was encountered at Antipolo, entered at 7 A. M., and shortly afterwards the ration train arrived. The rest of the day was mainly eat and then eat.

June 5th the column moved on Morong, to find that the second column had captured the town in fine style some hours before and had inflicted severe loss on the garrison. Upon the breaking up of the brigade after its mission had been accomplished, the Second Squadron was left to garrison Morong, Troop I returning to Manila.

The success of the Santa Cruz trip in cascós furnished the idea of equipping a command to patrol the Laguna de Bay, preventing contraband trade, fishing, and the assembling of insurgent troops in the towns along the lake shore. Three cascós were each fitted up with double tiers of bunks and a cramped kitchen. On June 25th, C, G and L marched

into these floating quarters, and naturally enough were always known thereafter as the "Horse Marines." The gunboat *Napidan* furnished the motive power as well as material assistance to the landing parties with her machine guns.

Lieutenant R. A. Brown reported from the States just in time to join the flotilla.

On the morning of the 26th a landing was made at Muntinlupa. The insurgents held stone parapets, strong trenches, and an old stone prison; but the "marines," with the aid of a few shells from the *Napidan*, routed them into the hills, killing thirteen and having but one casualty, Private William Nolan (C) killed. The fleet then anchored while the *Napidan* cruised about, searching for signs of the enemy, or, as it was called by the men, "lookin' fer a scrap." On the 28th, Captain Gale was obliged to surrender command to Lieutenant Brown. The former's hard work and exposure had brought on typhoid fever, and he was hurried to the hospital at Manila.

The landing at Angonan on the 1st turned out to be fruitless as far as a fight was concerned. Captain McGrath arrived from the States on July 4th, G's casco becoming the flag ship. On the following day the town of Pelila was captured after a skirmish in which Private Frank Bouchard (C) was slightly wounded. Tanay, Binangonan and Baras were thoroughly searched on the 6th, 8th, and 10th, respectively, but no signs of insurrectos could be found. On July 11th Lieutenant Parker received the notification of his promotion to the Sixth Cavalry, and left for Manila, turning over L Troop to Lieutenant Batson. A landing at Muntinlupa, on this day, was practically a repetition of the fight of June 26th, except that the enemy's force had been increased. Pursuit exhausted our ammunition to such an extent that the recall was sounded. The insurrectos considered the return to the beach a retreat, and pressed forward eagerly until the *Napidan* dropped shrapnel into their midst. Privates Edward Reeves (C) and Amos A. Noll (G), were slightly wounded. On the 18th, landing at Paete, the command marched five miles inland to San Antonio, finding the road

lined with abandoned trenches. The capture of an insurgent storehouse provided a much needed change of underwear and clothing, but the men, in the resulting mixed uniform, presented the appearance of opera bouffe pirates.

Cramped quarters and frequent wettings were now beginning to show their effects on the men, so Captain McGrath landed on a small island where a few drills took off the "sea legs," and "shore liberty" restored the men's spirits. On the 24th, word was received that the squadron would participate in an attack upon Calamba, the strongest insurgent position on the lake and one of the most valuable strategic points on the island. Knowing that the garrison was strong, General Hall brought six companies of the Twenty-first Infantry and a full battalion of the Washingtons from Manila in cascós, and General Lawton accompanied the expedition. Although timed to arrive early in the day, the landing in front of the town was not made until after 4 P. M. on the 26th, and then blunder followed blunder. The whole command was disembarked on the wrong side of a deep river, thirty yards wide, with the result that this stream had to be crossed in the advance; our squadron was forced to march across the entire infantry front to reach its prescribed position, and during a critical stage of the advance the gunboats fired on our line at 1200 yards.

When the squadron finally reached its place in line there were no mistakes made by the Fourth Cavalry. Captain McGrath advanced straight at the town, with L on the left, G in the center, and C on the right, of a line of skirmishers. About the time that L Troop struck the river the whole line was hotly engaged with the enemy, who were firing at short-range from positions concealed by the brush. Captain McGrath hurried to the river bank on the left. Seeing a small banca across the stream, he and Lieutenant Batson, without hesitation, swam the river and towed the boat back. Lieutenant Batson's leggings became entangled in some way, and he would probably have drowned if the Captain had not pulled him ashore. Eight men (good swimmers), with their carbines and belts in the banca and with the two officers, gained the insurgent side of the stream. Shouting to

Lieutenant Brown to push the line ahead, Captain McGrath boldly struck out with a yell to flank the enemy. The ten men must have looked like two hundred to the Filipinos, for they fled precipitately. Lieutenant Brown advanced the squadron rapidly for about a half-mile, vainly endeavoring to find a ford, when suddenly four shells from the gunboats struck within twenty yards of his line, and the Gatling gun began its well known mowing action with accurate range. Nothing demoralizes good men so badly as this fire from the rear. Lieutenant Brown ordered an advance out of the danger zone and into cover. Private Edward F. Olnhausen (C) was wounded at this stage. Fortunately the gunboats soon ceased firing, but it was then discovered that the insurgents had retreated round the right of the infantry and were enfilading the whole line.

After assisting in a disposition to meet this new situation, Lieutenant Brown left the infantry to handle the affair and hurried to the support of our small detachment, which could be heard firing on the other side of the river. A ford was discovered, and the squadron was soon in the town, to find that Captain McGrath and his small party had pushed the insurgents out so rapidly that all of the Spanish prisoners, including six officers, fell into our hands. Before reaching the town, however, the detachment had been swept by the Gatling guns and had had one desperate fight. Corporal Thomas Totten and Private Charles Gleerup (L) were killed, and Private Martin K. Hines (L) was wounded. The first named was shot in the back, and the wound was made by a large-caliber bullet. Also, while working through the town the detachment came under heavy fire from the enemy sheltered behind buildings and walls.

The conduct of Captain McGrath and Lieutenant Batson throughout the whole attack was so intrepid that they both received, upon General Hall's urgent recommendation, the medal of honor "for distinguished gallantry."

On the following day, the insurgents, who had retreated only as far as the hills, returned to make the first of a series of attacks upon our outposts. Lieutenant Brown, ordered out to drive them away, took one platoon of G Troop and

soon located a body of over sixty insurgents in an old sugar mill and behind other good cover. With less than twenty-five men he charged the position, killing three and wounding two of the Filipinos, who had abandoned many rifles in their desperate efforts to escape.

As the Filipinos were seen to have joined a larger body in their rear, the whole squadron was turned out, driving them to the hills after a spirited engagement. In a similar affair on the 28th, Private John MacGregor (C) was wounded. Thereafter it became necessary almost daily to chase the enemy away from the outposts. They were loth to lose this key to operations, and continually harassed its garrison for over four months. Such trying work had reduced the troops to an effective strength of only fifty per cent., when, on August 13th, the squadron was ordered back to Manila to comply with G. O. 40, 1898, discharging men enlisted for the war. The weeks that followed were full of hard work, drilling recruits, straightening out papers and property after the long period of field service, and equipping for the fall campaign, which all knew would be a busy one.

During the first six months of 1899 many changes in officers had been recorded at the regimental headquarters in the States. Colonel Compton rejoined on January 6th; Captains Hatfield and Dorst were promoted to be majors and were succeeded by Captain T. R. Rivers (F) and John A. Lockwood (D), the latter, by mutual transfer with Captain Wilder, retaining the command of M; First Lieutenant Kirby Walker came to the regiment, vice Lockwood, and First Lieutenant A. M. Davis, vice Slavens, appointed quartermaster; Second Lieutenant Craig transferred to the Sixth Cavalry, and was succeeded by Second Lieutenant John J. Boniface.

The act of March 2d, providing for an increase of two captains for adjutant and quartermaster and four lieutenants for regimental commissary and squadron adjutants, promoted First Lieutenants Neall, Cameron, and Walsh, the last named, to the regret of all, being thus transferred out of the regiment. Second Lieutenants Smedberg, Rutherford, Carson, Cassatt and Hawkins gained their bar, and the following youngsters were assigned in their places: Charles

S. Haight, Ward B. Pershing, Clark D. Dudley, Samuel A. Purviance, and Ben H. Dorcy. The staff appointments were not immediately made, as the officers selected by the colonel were not at headquarters, as required, and were urgently needed elsewhere.

Just at this stage, G. O. 82, A. G. O., detailed the headquarters, band and the remaining six troops for Philippine service, all officers hastening to report for duty as soon as the order was received. Captain Erwin was then, May 25th, appointed regimental adjutant, a position he had long held as lieutenant. Lieutenant Slavens was appointed commissary, and Lieutenants Brown, Stewart and Harris squadron adjutants. The former two, on duty in Luzon, did not receive their appointments until late in July, when, being in active command of troops in the field, they both promptly declined.

Captain J. M. Neall, one of the most efficient as well as popular officers of the regiment, to the surprise of everyone, was discovered on February 15th to have been "going the pace." He was short in his accounts as exchange officer at the Presidio, and was dismissed from the service July 15th.

The concentration of the six troops at the Presidio was a slow matter, for it was a difficult problem to find organizations to replace them at their different stations. Troops A and F were also delayed by a miner's strike at Wardner, Idaho, which required the presence of United States forces. They reached the Presidio May 28th, embarking June 23d on the U. S. transport *Sheridan*, with the following officers:

Troop A—Captain, Geo. H. Cameron; first lieutenant, E. B. Cassatt; second lieutenant, J. N. Munro.

Troop F—Captain, T. R. Rivers in command; first lieutenant, Kirby Walker; second lieutenant, L. R. Holbrook.

Attached—First Lieutenant H. S. Hawkins.

These troops were followed June 28th by the headquarters, band, and Troops B and M, on the transport *Valencia*, with the following officers:

Major Charles Morton, in command.

Adjutant, Captain J. B. Erwin.

Squadron adjutant, First Lieutenant F. W. Harris.

Troop B—Captain, James Parker; second lieutenant, C. D. Dudley.

Troop M—Captain, J. A. Lockwood; second lieutenant, J. J. Boniface.

On the date of sailing of the headquarters the actual command of the regiment rested with Major Rucker, in the Philippines, for Colonel Compton had been retired June 17th (succeeded by Colonel Michael Cooney, who never joined), and Lieutenant-Colonel Wagner had relinquished command, to be retired on July 3d. The horses of the four troops of the band and of headquarters were all left at the Presidio under the charge of Lieutenant Slavens, who was acting as regimental quartermaster.

The Quartermaster's Department, seeing that the transportation of animals across the Pacific was entirely feasible, and appreciating the importance of quick delivery, had equipped several tramp freighters for this work. On one of these (the *Wyfield*) Lieutenant Slavens and Veterinarian Plummer, sailing July 5th with 145 horses, lost only ten, while on another (the *Conemaugh*) Lieutenant Winans, sailing July 11th with 275 horses, lost only twelve, the remainder being put ashore in both cases in excellent shape for immediate work.

Both vessels stopped at Honolulu, putting the animals ashore for a few days' rest, the actual sailing time to Manila being: *Wyfield*, thirty-six days; *Conemaugh*, thirty days.

Troops D and H were not relieved from the Yellowstone Park until June 23d. They reached the Presidio June 30th, and on the 13th of July sailed on the *City of Para*, with the following officers:

Major J. A. Augur, commanding.

Troop D—Captain, W. E. Wilder; first lieutenant, A. M. Davis.

Troop H—Second lieutenant, F. T. Arnold.

The horses of Troops D and H were turned over to Captain Cress (promoted July 1st, vice Neall, discharged), to be transported on our old friend, the "wind jammer," *Tacoma*. Her trip lasted eighty days, and, although Captain Cress

landed 191 of his 200 horses, they showed the effects of the long voyage as soon as hard campaigning was encountered.

August 13th saw the whole regiment present for duty in Luzon. It is to be remembered that the last six troops to arrive had complied with G. O. 40 before sailing. Hence, while all the troops of the regiment now had fully eighty per cent. recruits, the original six had the advantage, in that their twenty per cent. old men had all been under fire.

As soon as the new troops had stowed away their horse equipments and heavy property, they were promptly sent out of Manila for outpost work. A and F left on July 30th for the Mariquina Valley; B and M on August 4th for the Deposito (Manila reservoir). On August 12th an expedition was directed against the town of San Mateo, in the Mariquina Valley, seven miles north of the pumping station. Captain James Parker, commanding the expedition, with Troop B and parts of companies of the Twenty-first and Twenty-fourth Infantry (250 men in all), advanced along the main road on the left bank of the river. Captain Rivers, with 100 men from A and F, marched across country on the right bank. The two columns were to unite at the town with a third coming from Novaliches, consisting of a battalion of the Twenty-fifth Infantry under Captain Cronin of that regiment. About half way to the town, Captain Parker's column encountered the enemy stationed behind intrenchments that completely controlled an extended flat covered with submerged rice paddies, and swept the road which led straight up to the trenches.

The advance across this bullet-raked open country was executed in faultless style in spite of the large percentage of recruits and the fact that it was "first engagement" for all hands. Sergeant J. C. Robertson (B) was killed and Private Charles Jabelman (B) seriously wounded in the first stages of the fight, and the infantry suffered a heavy loss; but there was no hesitation, no shirking. The trenches were carried, succeeding positions captured after brisk fighting, and the town of San Mateo itself occupied shortly after noon. Captain Parker in his report highly commends the conduct of Lieutenants Dudley and Boniface, First Sergeant

G. W. Moffitt and Quartermaster-Sergeant Samuel Adams, both of B.

Captain Rivers' progress had been slower, due to the entire absence of roads. After a laborious march of three miles it became necessary to capture two outposts in strong position on adjacent hills. The nearest was carried after a sharp fight and the garrison of the second fled to avoid being cut off. The command was halted an hour to rest the exhausted men. Resuming the march, the advance-party soon developed the enemy on a ridge perfectly controlling a deep ravine perpendicular to the line of march. Under their stiff fire Sergeant Nicholas Sebellius (F) was instantly killed. Reply to the fire appeared to be of little value, as the Filipinos were perfectly concealed and were using smokeless powder. The officers were assembled for consultation. It was evident that the force in front was the former garrison of the outposts; a succession of parallel ridges allowed them to retreat to new positions, and the men were not physically fit to do the flanking work required; opposition to Captain Parker's advance had ceased. Accordingly, Captain Rivers withdrew his command and returned to camp, having seen nothing of the column from Novaliches. The latter had also been obliged to march across country, and did not reach San Mateo until long after the time planned, although the enemy was not encountered. Acting under orders, Captain Parker, with his own and Captain Cronin's force, returned to the pumping station the following day. Apparently it was not considered policy to leave a garrison at San Mateo at this time. The insurgents promptly re-occupied the town and it was twice subsequently captured by the Americans. The record for captures lies between San Mateo and one other town, of which Mr. Dooley says: "Whiniver ye're in doubt, take Porac."

The horse transports, *Wyfield* and *Conemaugh*, arrived in the bay on the 16th and 18th. Troop F was relieved from Mariquina on the 18th and returned to the city to "stand to horse." Men and horses were marched next day to our new rendezvous, the Pasay cavalry barracks. A full set of nipa barracks for twelve troops and the band, with officers'

quarters, hospital, guardhouse, storehouse, and office, had just been completed on the shore of the bay, about three miles south of the Walled City. The parade ground, with bandstand and flagstaff, and the regularly spaced buildings, gave the place a very homelike appearance. At first there were no stables, but subsequently excellent nipa-roofed open sheds with feed-boxes and mangers were constructed.

The site was healthy, cool and particularly adapted for cavalry. About a half-mile further south is an excellent drill ground (the site of Camp Dewey, where the first expedition was encamped) large enough for a squadron in close order, and with a firm sandy soil that permitted work between rains in the wet season. Twice a week the horses were ridden into the bay, which was a hard, gently shelving beach at this point. Both men and horses enjoyed the frolic, combining as it did, good exercise and a refreshing bath.

On the 19th, Troops D, G and H relieved B, M and A, respectively, at the outpost stations, the latter reporting at Pasay with their horses, which they had picked up at the quartermaster's corral in the city.

Preparation for mounted work went on busily, all the horses having made the voyage barefoot. Troop L, on the 22d, was sent to outpost station at Malaban, two miles south of our barracks.

The roster of officers was depleted by G. O. 122 and 150, organizing the new United States Volunteers. Under the first, on July 15th. Captain Lockett became colonel of the Eleventh Cavalry, U. S. V.; Lieutenant Carson, a major in the same regiment; Lieutenants Boyd and Cassatt, majors of the Thirty-seventh and Twenty-seventh Infantry, U. S. V.; and Lieutenant Scherer, senior captain of the Twenty-seventh Infantry (subsequently promoted major). Under the second order Captain Parker became lieutenant-colonel of the Forty-fifth, and Captain Wilder, lieutenant-colonel of the Forty-third Infantry, U. S. V. Pending the arrival of their regiments from the United States, Lieutenant-Colonels Parker and Wilder and Major Cassatt were assigned for duty to the staff of General Young. Other changes in

officers were: Lieutenant Brown appointed A. D. C. to General MacArthur on August 13th; Captain Erwin on August 11th, and Lieutenant Slavens on August 22d, resigned their staff positions in order to obtain active field service; Major Rucker on August 4th; Captain Gale (who had been appointed adjutant *vice* Erwin) on August 19th, and Captain Wheeler on August 26th, were invalided home to the States; Lieutenant Davis appointed squadron adjutant August 14th; Major Morton detailed on duty as assistant to the Provost Marshal General, and Lieutenant Batson detached on September 2d to organize a battalion of native scouts from the Macabebes, a tribe of Filipinos who had always been at war with the Tagalogs, the leaders of the enemy. Many Macabebes had seen service under the Spanish.

[*To be Continued.*]

FILIPINO LABOR.

BY FIRST LIEUTENANT CHAS. O. THOMAS, JR., FIRST CAVALRY.

SO much has been said and written detrimental to the Filipinos as laborers, that I wish to give my experience in working them for the past year and a half.

As depot and constructing quartermaster at Batangas, P. I., during the construction of the post of Camp McGrath, I had on my rolls as many as 1,500 day laborers of all classes, carpenters, stonemasons and common laborers. The post was built by native labor, only six American carpenters being employed as foremen.

That "Filipinos cannot work equal to Americans," is true, but when one considers the difference in a day's pay, twenty-five cents to thirty-five cents for the native laborer, \$1.50 for the American, \$1.25 to \$1.50 for the Chinese, one should not expect quite so much.

Again, where are you to find the American labor in these islands that will or can handle the pick and shovel for eight hours a day? It may be here, but it is not looking for such jobs as yet, nor will it so long as teamsters are as scarce in the Islands as they are now and have been for the past two years.

It is not fair to the native to compare his labor with the American labor, if, at the same time, you do not take into consideration the difference in wages. First, we will take up the common laborer or peon, as he is called out here. In the construction of Camp McGrath at Batangas, I employed over a thousand of this class of native laborers daily and paid them twenty five cents a day. Anything like this number of American laborers could not be had in these Islands for any price, but almost daily some American would

come along that needed work and would be willing to work for \$1.25 to \$1.50. You will readily see that one American laborer at \$1.25 must do the work of five natives. I found that he could do that for one or possibly two days; but he could not keep it up, and after the native learned how to use the American pick and shovel, the ratio would drop to two, or at the outside three, natives to one American.

In working the native laborer you cannot afford to rush him at the start; take him a little slowly at first until he is accustomed to you and your methods, but more especially until he is acquainted with your system of paying. Once you get his confidence he will do a lot more than otherwise.



ROAD-MAKING WITH FILIPINO LABOR.

Second, we will take up the Filipino carpenters, and see what can be said in their favor. I employed more than 500 of them. At first my American carpenters had to teach them how to use American tools. They brought along with them saws that looked like the cross-cut saw we use in the States to saw up stove wood. It took two men to use them, and then they would or could not saw to the line; but they quickly learned the use and the value of the American saw, and before Camp McGrath was completed many of them became first-class carpenters. The style of construction and the plans were all different from anything they had ever seen before and, naturally, they did not take hold at once as

American carpenters would have done; but after the first house was finished, there was little trouble with any of the others. Four of these native carpenters, on the completion of Camp McGrath, were able to take an American plan and erect a building with very little if any assistance from the foreman.

Now we will compare the wages of the Filipino carpenter with that of the American, the Jap and the Chino. I have tried them all.

First-class American carpenters want from \$125 to \$150 a month; the next grade want from \$75 to \$90 per month; Japs \$50 to \$60 and a ration; Chinos \$40 to \$50 and a ration. Natives I paid from forty cents to \$1.25 a day, only a few drawing over seventy-five cents.



OFFICERS' QUARTERS UNDER CONSTRUCTION AT CAMP MCGRATH, P. I.

My experience at Camp McGrath taught me that of the four different nationalities of carpenters I had on the work, the Filipino was the best for the money. I do not mean that he is the best carpenter, for the Filipino is not a skilled carpenter; but on rough work, such as the quarters erected out here are, the Filipino carpenter will save any contractor money, if he will only learn how to work him, and that is no great task. Japs, though, are finished carpenters, and I kept some eight or ten all the time to do finishing work; but when it comes to raising the building they are not to be compared with the Filipinos. Japs are afraid of falling where the Filipino would not give it a thought.

Now, take up the stonemason. You will find this class of laborer the most skilled of all. Possibly this is because so many of the buildings throughout the islands are made of stone. Native masons are to be had in large numbers. They chop out their own stone from what is called out here "adobe rock." It is a soft stone that becomes hard when exposed to the air, and is used throughout the islands for the construction of buildings and bridges. They are very slow, but their work is entirely satisfactory when finished. On the completion of Camp McGrath, I was detailed to build the post here at Los Baños. Very nearly all my old carpenters, stonemasons and laborers followed and were employed on the work. These two posts stand to-day as illus-

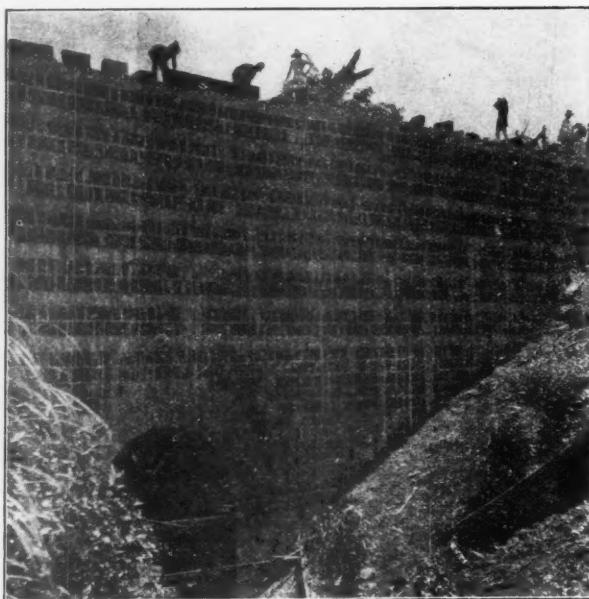


FILIPINO LABORERS WORKING AT THE QUARRY.

trations of what skilled and unskilled Filipino labor can do. The stone bridge now building here is being built entirely by Filipino labor. No Americans are employed other than the teamsters who bring the materials. This bridge when finished will be 71 feet high, 210 feet long and 32 feet wide. To work the Filipino successfully, you must first apply system to your work and, when he understands you, he will prove satisfactory. Discipline in the work and among them can be just what you care to make it, and such a thing as a strike is never heard of. They have their little "kicks," and the man that works them successfully is the one that will listen to their complaints and will settle them. Anyway

the boss-man settles it is satisfactory to them, if once you have gained their confidence.

The large majority of Americans have not the patience to work the Filipino. They expect him to go on the rush all the time, not taking into consideration the tropical sun and the small wages paid him. Especially if you care to get a large job of work done, I would advise you not to rush the Filipino till he becomes acquainted with your system;



FILIPINO MASONS BUILDING BRIDGE AT LOS BAÑOS, P. I.

and above all, pay him on the day you say you are going to pay. The Spaniards had a system of advancing him money — a poor system all Americans will say, as it is not necessary.

I began by paying my force every Saturday night; after a few weeks I paid them only twice a month, and within a couple of months changed again to monthly payments, and have continued this ever since. I would have paid them

monthly from the start, but appreciated the fact that they had very little to live on, so I adopted the above system. I have always had all the laborers I could use, and have used a good many, believing that, if it took one man one hundred days to complete a job of work, one hundred men could do the same job of work in one day and not cost any more. I not only worked a good many Filipinos, but collected them by the hundreds and sent them to other constructing quartermasters throughout the islands.

If I had the employment to offer the native, I do not hesitate to say I could get two thousand laborers, carpenters and stonemasons in two days. A few days ago I told my native foreman to ask the natives in my employ if they would like to go to Panama and help build the canal, and, if you were here to-day, you could hear them say, "We are going with the Teniente to Panama to build the canal when we finish this work." They could be contracted with to go to Panama to work on the canal for a term of two years, and I believe would prove to be among the best classes of workmen that could be had for that country. Their wages would, of course, have to be advanced beyond what they are paid here, but in the end they would do a lot of work for a little money. "Give the devil his due." The Filipino is the best laborer I have seen in these islands, considering the wages paid.

This information is compiled from one and one-half years' experience as depot and constructing quartermaster at Batangas, as constructing quartermaster at Los Baños, and as superintendent and disbursing officer of the Calamba-Los Baños-Bay road for the Civil Government.

LOS BAÑOS, LAGUNA PROV., P. I.,
June 24, 1904.

SURRA.

BY CAPTAIN CHARLES D. RHODES, GENERAL STAFF, U. S. ARMY.

Nearly every cavalry officer who has served in the Philippines since 1901, is well acquainted with the characteristics of this fatal animal disease, although for some time many things were believed of it, which have since been disproved.

My own regiment, the Sixth Cavalry, stationed in the Islands from 1900 to 1903, almost entirely in Southern Luzon, suffered unusually from the epidemic, and at the time of our departure for the United States, the question of eliminating or at least controlling the disease, appeared to us to be the paramount cavalry question of the day.

In my own troop (C) we lost about twenty-five horses and ten mules—not all at once, but by ones and twos, stretching over a period of a year and a half. Nothing appeared to cure the disease, and although theories as to its causation and transmission were quite lavishly manufactured, no one was certain of his ground, and the disease continued to run its course. I have never known a well established case of surra to recover.

Surra was often confounded with the native form of glanders, and we were told that it had existed among native stock for many years. This, as has since been demonstrated, was a mistake, for from all accounts it was not introduced into the Philippines until 1901.

There was a quite general idea, too, that native grasses were responsible for its transmission; and again, that swampy drinking water was a factor. At one time it was thought to be infectious, later simply contagious, and still later, neither infectious nor contagious. The dissimilarity

of opinions held by officers is shown by the succession of general orders and circulars, emanating from the headquarters, Division of the Philippines, prescribing regulations for the treatment of surra. Up to the present time (1904), however, no system of treatment for the *cure* of surra has been discovered, but our knowledge of the disease and its transmission has advanced to such a point, that the measures as to its *prevention* have proved efficacious.

The Inspector General, Division of the Philippines, has furnished the General Staff of the Army, which has been interested in the matter, with the following statement:*

"The mortality from surra among the U. S. Government animals in the Philippine Islands during the past year (1903-1904) has been much less than during any preceding year since the disease appeared. Since July 1, 1903, approximately 200 public animals have been destroyed in the division on account of surra. This decrease is due not to any form of treatment after infection, but to increased and efficacious precautions against infection. Surra has been confined to no general section or sections; animals have been destroyed at twenty-seven different stations, involving sixteen provinces and ten islands. Total suppression of the disease in the islands cannot be hoped for under existing conditions, since no preventive measures are being observed by private individuals to stamp out the disease, and to prevent its spread among private stock. Not only are horses, mules, and carabaos subject to this disease, but also dogs, rabbits, monkeys, rats and many other animals, domestic and wild.

"Attention is invited to G. O. 103, Headquarters Division of the Philippines, 1903, copy enclosed.

"Referring to precautions to be observed relative to old rice fields, and low, swampy ground subject to overflow, it should be remarked that while it is believed that contraction of surra cannot be traced directly to grazing in such localities, or to use of grass from same, yet such conditions are liable to cause diseased feet, scratches and wounds about the feet, legs, and mouth, and it is well known that such localities are prolific in flies, mosquitoes, and other insects which are known to carry infection. The order prescribes that temperatures be taken in the early morning; experience has taught that midday is the better time for taking same.

*Furnished through the Chief, M. I. D., Manila, P. I., dated July 8, 1904.

"Relative to question No. 3, I have no definite or reliable information. Captain George P. Ahern, Chief Philippine Forestry Bureau, should be able to supply full information upon the subject. The general opinion of cavalry officers as to the future supply of horses for the Philippine Islands is not well known to me. My opinion is that for draft purposes mules are in every respect far preferable. For saddle purposes, it is believed that a cross between the native stallion and our hardy Western mare of moderate size would produce a horse ideally adapted to island service. The experiment is certainly worth thorough and systematic trial."

The most valuable treatise on surra which has appeared, is the recent report * of Musgrave and Clegg, of the U. S. Biological Laboratory, Manila, which reviews among other things the history of the disease, its ætiology, modes of transmission and infection, symptomatology, course, duration, prognosis, and treatment. It is a highly technical and scientific report on the disease, and a brief synopsis of its main features and conclusions cannot fail to be of interest to all officers, who have had or will have to do with the care of cavalry or draft animals in the tropics.

Surra is a form of disease due to a parasite called *Trypanosoma*, with a distinctive surra species known as *Tr. evansii* or *Tr. brucei*. The generic disease *Trypanosomiasis* has been known for generations in India, and has annually destroyed millions of dollars worth of animals in India, Africa, and South America. More recently the surra epidemic has invaded the Islands of Java, the Philippines and Mauritius, the latter island becoming infected during the South African War.

As to climate, the transmission of the disease seems to be coincident with periods of wet weather, for no other reason it appears from our present knowledge, than that such climatic conditions are most favorable to insect life, and that insects (principally biting-flies) carry infection.

So far as horses are concerned, foreign animals do not

**Trypanosoma and Trypanosomiasis with special reference to surra in the Philippine Islands*, by W. E. Musgrave, M. D., acting director Biological Laboratory, and Moses T. Clegg, assistant bacteriologist, Biological Laboratory (Department of Interior, Manila, 1903. No. 5).

appear more susceptible to surra than native ponies, as proved by experience with Philippine, Chinese, Australian, and American horses. Sex and color appear to play no part in the communication of the disease; and age, only in part, from the fact that the older horses are more prone to have wounds, favoring the introduction of parasites.

The present theory of the transmission and infection of surra depends solely upon the theory of biting flies and insects; and exhaustive experiments have shown that in the absence of the original parasitic organism or host, and of biting insects, the disease does not spread. Experiment also shows that the disease is not contagious, nor can it be transmitted congenitally; and it does not appear to be transmitted by coition, unless some wound of the genitals permits the blood to become infected.

One of the most important points which the biologists appear to have demonstrated, is that surra is not transmitted through sound mucous membrane of the alimentary canal, and according to present knowledge the surra parasite is not to be found in food and water. All artificial attempts to infect the latter have failed. If this be true, as seems most probable, the danger from native Philippine grasses is eliminated, unless the animals have lesions of the mucous membrane or cuts on the skin, which might permit infection, supposing that for a brief interval food and water serve as culture media for the parasites. Horses fed on oats and hay have been equally as susceptible as those fed on native grasses; and, after attempting to infect water with the parasite, injection of this water under the skin of a healthy animal has failed to produce the disease.

To sum up, exhaustive experiments, continued for more than a year, on horses, dogs, goats, rabbits, guinea-pigs, monkeys, cats, and rats, have failed to produce the slightest evidence that infection by food, drink or otherwise ever occurs in mucous membrane which is perfectly sound.

"Surra is essentially a wound disease, and transmission through the injured mucous membrane results when infected material is brought in contact with it." *

* Preliminary report of Musgrave and Williamson.

Of the biting insects which have been suspected of transmitting the disease, biting flies have repeatedly been shown to transmit the infection; fleas transmit the surra of rats (*Tr. lewisi*) from rat to rat, from dog to dog, and from rat to dog; and transmission by mosquitoes, lice and ticks has not yet been determined. While the transmission of surra to horses by ordinary flea bites has not yet been established, our knowledge of the transmission of the disease through skin wounds, leads one to believe that open sores on horses' legs would be readily subject to infection by fleas as well as by flies.

The first symptom to be noticed in an animal infected with surra is a rise of temperature, followed by a remittent or intermittent fever. Later the animal becomes stupid, with watery discharges from the nose and eyes, hair rough; and finally the discharges become more profuse, emaciation develops, the genitals and dependent parts become much swollen, the gait becomes staggering, and death follows. During the progress of the disease the parasites mechanically destroy the red blood corpuscles, resulting in progressive anemia. Experiment has shown that the period of incubation in artificially contracted cases of surra in horses is usually from four to seven days, although it may be more; and it is believed that the incubation period in naturally contracted cases does not vary more than in experimental cases.

In the Archipelago the duration of the disease in horses has been found to be from fourteen days to three months, and is about the same for American, Chinese, Australian and native horses.

With mules the symptoms are in general similar to those of horses, but in the Philippine Islands the disease is with them of longer duration.

Besides being found in many animals, cases have been reported of surra parasites having been found in the blood of human beings, but so far in the Philippines no cases have been met with.

PREVENTION.

All efforts to cure the disease in the Philippines have failed, and there appears to be slight prospect of evolving a successful method of treatment. Prevention is then our only hope.

In South America the disease usually disappeared among animals removed from marshy regions to high, dry ground; animals removed to stalls in South America and in Africa also appeared to fare better. In Java quarantine regulations were adopted and enforced, and it was recommended that animals afflicted with surra be isolated, or killed and buried. Both sick and healthy animals were transferred to dark, spacious, well-ventilated stalls, where few if any flies were to be found. Cleanliness about the stalls was required, fecal and refuse matter were removed, and in some cases smoke fires were made to drive away the flies.

In the Philippines the following measures are recommended in the report of Musgrave and Clegg:

1. (a) The destruction of all infected horses, mules and other animals of economic importance, according to systematic inspection by sanitary inspectors; and, after death, the removal of the bodies to crematories or to places of burial in a fly-proof wagon, or one protected by mosquito netting.

(b) The destruction of rats. In Manila there are annually thousands of rats destroyed on account of the plague; in the provinces the systematic poisoning of rats is recommended.

(c) The destruction of game and other wild animals.

2. The destruction of stinging and biting insects, more particularly the biting flies. This is best accomplished by destruction of their breeding places, by the proper disposition of fecal matter, the burning of all offal, and general cleanliness about stables and corrals.

The most recent methods for the destruction of mosquitoes is well known. The destruction of fleas is as yet an unsolved problem.

3. The treatment of contact animals: Quarantining for seven days contact animals exposed to surra; and contact

horses should be subsequently protected for forty-eight hours against flies, either by mosquito netting, by smearing with iodoform ointment, washing with solution of creolin, or by burning smudges.

4. Additional measures of prevention for individual horses are avoidance of allowing them to stand for any length of time during daylight in a group of other horses, cleanliness of stables, screening stalls and keeping sores covered with suitable ointment, such as tar or iodoform ointment, to keep off flies.

TACTICAL PROBLEMS AND THEIR SOLUTIONS.

SUITABLE FOR SOLUTION AT SMALL CAVALRY GARRISONS.

MAP PROBLEM. CAVALRY SCREEN. SHEET NO. I.

General Situation.

THE Brown army has beaten the Blue army near Charlottesville (seventy miles southwest of Manassas), and has lost contact with it. The Blue army is supposed to have retreated towards the northeast.

Special Situation (Brown).

The Brown cavalry corps is pushing northeast, trying to regain contact with the Blue army.

The First Cavalry (Brown) is advancing by the Warrenton Pike. At 5 A. M. 15th October, 19—, its headquarters and Third Squadron are at New Baltimore (five miles south of Thoroughfare Gap). The First Squadron is at Buckland, and the Second at Thoroughfare Gap.

To carry out the instructions of the regimental commander, the major of the First Squadron, at this hour, gives the following verbal order to the captain of Troop A:

"Contact has not yet been established with the Blues, but inhabitants say they are retreating by roads north of Antioch. Our regiment will continue along Warrenton Pike, its left connecting with the Sixth Cavalry along the road Antioch-Woolsey, and its right with the Eighth Cavalry along Broad Run and the road Millford Mill-Manassas. The First and Second Squadrons will continue in the advance, and regimental headquarters and the Third Squadron will march in reserve on the Pike.

"Troop A will take the Warrenton Pike, keeping touch with the Second Squadron on the left and with Troop B on

the right. The Second Squadron will reach Thoroughfare at 6 o'clock (A. M.). Troop A will start at 6 A. M.

"Troop B will march in rear of Troop A to Gainesville; thence by the Gainesville-Bristow Road and the first road to the east to the Rollins house; thence eastward by the road Wellington—Newmarket X Roads—Balls Ford.

"I will march with Troop B."

Note. You are in command of Troop A. Its strength is 100 troopers. All streams on the map, except Broad Run and Bull Run, are fordable at all points.

Required:

1. What would be the position and disposition of the troop at 6:15 A. M.?
2. What means will you take to establish communication with the Second Squadron?
3. Describe in detail how you conduct your troop from the time it starts till it enters Gainesville. (Note: No enemy is found at Gainesville.)
4. What buildings do you particularly have searched at Gainesville?

Map: Manassas Maneuvers.

SHEET NO. 2.

Special Situation (Brown) Continued.

A private letter found in the post office at Gainesville, dated "Hickory Grove, Oct. 14, 19—" states that a large force of Blues has been passing through that place during the last two days.

Required:—To whom and how do you communicate this information?

SHEET NO. 3.

Special Situation (Brown) Continued.

At the fork-of-roads between Wayne and Burrel on the Warrenton Pike you meet a trooper from one of your advanced patrols conducting a negro. He says the negro has just come from Catharpin, and reports that he saw some Blue cavalry there yesterday.

No signs of the enemy have been seen along your route so far, and the troops to your right and left have informed you that they have seen no signs of him. The inhabitants all say that no Blue forces have marched along the Pike for several weeks.

Required:

1. The questions you ask the negro.
2. What disposition do you make of the negro?

SHEET NO. 4.

Special Situation (Brown) Continued.

From the negro you learned that a force of Blue cavalry, he thought about 500, was at Catharpin at sunset yesterday. He thought it marched north from there.

On your arrival at a point 1,000 yards farther east on the Pike you receive word from the troop on your left, that its patrols have seen two or three Blue scouts who retreated toward the northeast.

At the same point a messenger from your leading patrol brings information that from a window in the Swartz house two Blue troopers, apparently vedettes, had been seen in the edge of the first wood east of that house.

The troop on your right reports no signs of enemy as yet.

Required:

1. How the noncommissioned officer of your leading patrol conducted his patrol after the discovery of the two Blue troopers.
2. What you do with the information received.

SHEET NO. 5.

Special Situation (Brown) Continued.

At Pageland Lane a message from your advanced patrol informs you that the two Blue troopers fled to the northeast beyond Douglas Heights, and that the way is clear to Groveton. Also that the people of Groveton state that they have seen several small parties of Blue cavalry since day-break; that one party came from the direction of Sudley

Springs, one by Lewis Lane, and several from the direction of the Stone Bridge.

You proceed to Groveton. There messages from three of your advanced patrols report a party of the enemy at least as large as a half troop at Buck Hill.* The patrol on the Pike has had to fall back, and the other two are halted in observation.

Required: Describe your dispositions on passing Groveton.

SHEET NO. 6.

Special Situation (Brown) Continued.

Having conducted your troop under cover to the wood south of the Henry house, it is discovered by the Blue detachment at Buck Hill, which makes its escape at the gallop in the direction of Poplar Ford.

Your patrols proceed toward the Stone Bridge, which they report is held by a strong force of Blues. From the Henry house you see with your glasses a number of guns, you estimate four batteries, on the hill at A. F. Kendall's (northeast of Poplar Ford).

The troop on your left reports that Sudley Ford is held by the Blues, and that a line of trenches is occupied on the ridge south of the Sudley mansion.

The troop on your right reports Ball's Ford held in force by the Blues.

Required:

1. The message (on message blank) that you send back.
2. From all the information you have gained what do you conclude concerning the Blue army?

SOLUTION—SHEET I.

Answer 1.—We will suppose that Troop A was ready to mount and start. As the enemy is in retreat he has probably stuck to the main roads in order to travel as fast as possible. We desire to recover contact as soon as practicable, therefore we must make good time. The country is close and wooded, so the troops must keep on the roads.

*Stone House is at the foot of Buck Hill.

The second lieutenant will trot forward on the Pike with a corporal and six men in the form of "Bonie's points." At 6:15 it would have about reached the junction with the Carolina road.

A sergeant and four men would trot out toward Thoroughfare via Carter's to try to establish connection with the Second Squadron. It would about have reached Ford's at 6:15.

The troop with a scout or two a few hundred yards ahead of it, would start out at a walk in column of twos. At 6:15 the head of it would be a little beyond the midway point between the first two creeks the Pike crosses.

Answer 2.—I would have ordered the patrol which started toward Thoroughfare not to go much beyond Carter's, because, since the Second Squadron was to pass through Thoroughfare at 6 o'clock, the sergeant could not expect to find any part of it at Thoroughfare if he should go on thither. He ought, however, to meet a patrol from that squadron near Carter's. So his orders would be to scout a little beyond Carter's, then to turn east and rejoin the troop by the Carolina road.

On reaching the Carolina road I would send another patrol of a noncommissioned officer and four men up it toward Haymarket. One or the other of these patrols would surely meet a patrol from the Second Squadron.

Answer 3.—Although Troops B, C and D would all be between my troop and Broad Run, as I know that B would be behind me at this time, and as I suppose from the nature of the country that C and D must also start out behind me on the Pike, I would detach a patrol of a noncommissioned officer and four men to scout toward McCrea's Ford unless I had been informed that one of the troops behind me would look out for it. I would also have the by-roads and farm houses explored as well as it could be done without at all delaying the march. I should not, however, consider this of much importance unless some signs of the enemy were found in the roads. No large force of a fleeing army could be hidden in woods or farm houses without leaving some signs along the roads.

Before arriving within striking distance of Gainesville I should expect to receive a message from my second lieutenant telling me whether or no the town was occupied by hostile troops. As (according to the terms of the problem) no enemy was found at Gainesville by my second lieutenant's patrol, I would march into the town without any special precautions. The lieutenant would, of course, have explored the town in the prescribed way before entering it with his patrol. As I should want to give the officer's patrol time carefully to approach and examine Gainesville, I would march the main body of the troop at the walk most of the way to that town.

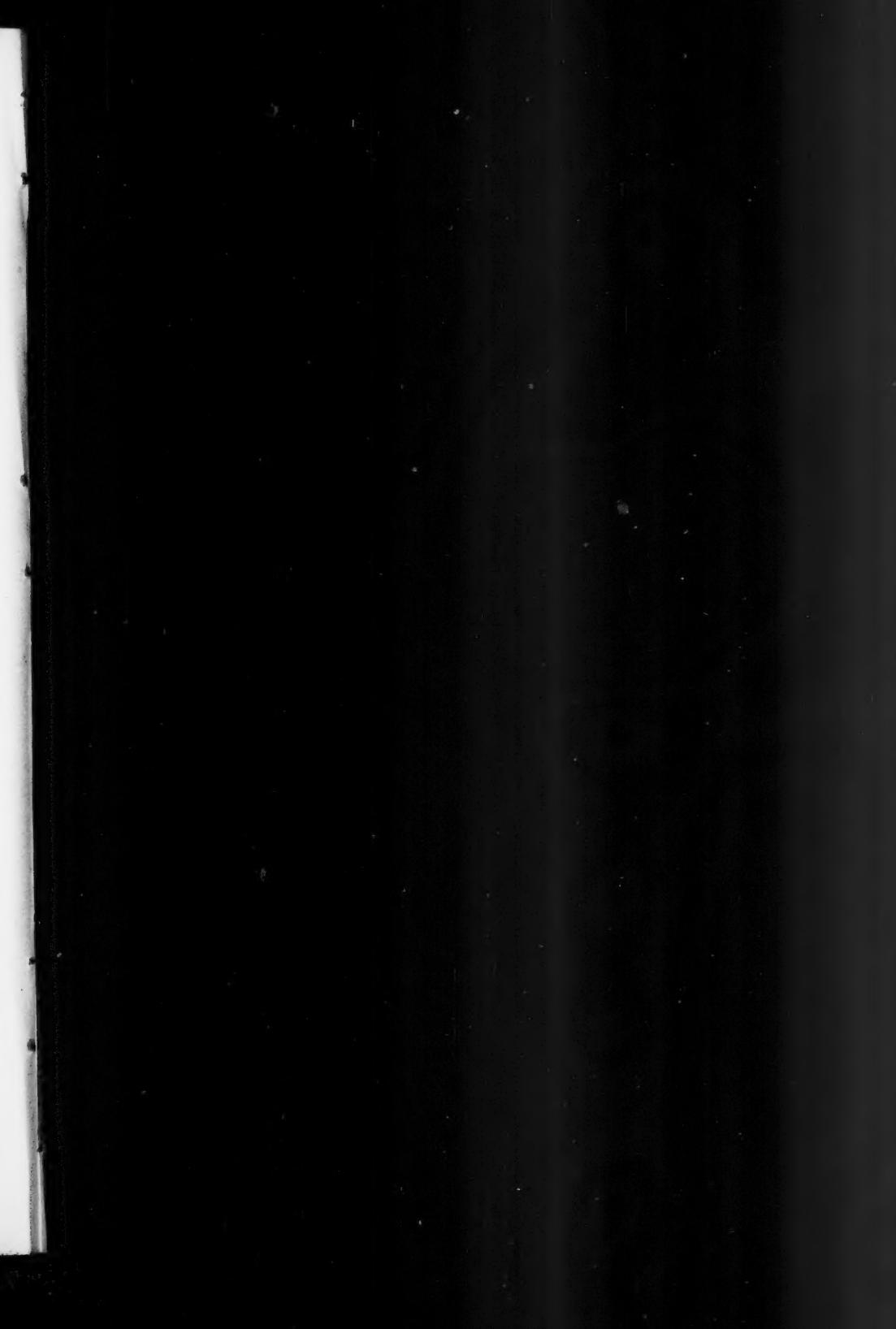
Answer 4.—Unless my second lieutenant had already done so before my arrival, I would have the post office, telegraph and telephone stations, and the railway station searched. If I needed maps of the country I would have the school house and any real-estate dealer's office searched. Gainesville is not a county-seat, so there is no court-house. There are probably no public buildings there besides the school.

SHEET NO. 2.

Answer.—As the squadron commander is with Troop B, which came as far as Gainesville in rear of my troop, he would probably not be far away, and I would hand the letter or send it to him.

SHEET NO. 3.

Answer 1.—When did you leave Catharpin? How far do you live from there? About what time of day was it when you saw soldiers there yesterday? How were they dressed—describe their clothing? About how many do you think there were? How many saddle horses do you think they had? How many soldiers were there besides the ones on horseback? How did the men and horses look—fresh or tired? Did you notice any cannons or any wagons? Which way did they come from? How long did they stay in town? Which way did they go when they left? What did they appear to be doing in the town? How did they and the town

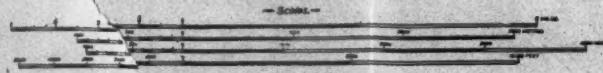




MANEUVER GROUNDS, PRINCE WILLIAM AND FAIRFAX COUNTIES, VA.

Surveyed under the direction of
Maj. EDWARD BURR, Corps of Eng'rs,

By a detachment of 2nd Battalion of Engineers,
June - July, 1904.



LEGEND.

Public Roads —
Minor and Private Roads —
Telephones •
Long distance Telephone Lines —
All roads may except:
Warrenton Pike, badly worn metalled Road
Thoroughfare Pike, metalled four rods wide.
Elevations are above mean sea level.

*Gen. C. Spalding
1st Cav. Soc.
in Command of Detachment*





allied Roads:
or condition
vel.



people seem to like each other? About how long was it from the time the first of them appeared in the town until the last ones got there? Did you hear the names of the general or any of the officers? etc., etc.

The answers of the negro would, of course, suggest new questions.

Answer 2.—If the answer of the negro showed that he had seen Blue troops at Catharpin or elsewhere, I would send him back with a list of his answers to me. As the squadron commander has gone toward the right with Troop B, and I know the regimental commander is not far back on the Pike, I would send the negro to the latter. But I would inform the squadron commander by messenger. I would also advise the troop on my left.

SHEET NO. 4.

Answer 1.—The noncommissioned officer probably has a patrol of four men. He would keep them concealed, and look carefully to see and find out all he could, probably going himself through the wood south of Swartz to its outer edge to get a closer view. If he could not determine from there what there was in the wood where the Blue troopers were, he would try to move his patrol under cover down Pageland Lane, behind the wood at Hereford's, and through the corn (which would probably not be cut yet) across to the wood east of Hereford's. Through this wood he would try to work up in rear of the two Blue troopers, finding out what was in rear of them, and capturing them if he could. He could not take the time for a wider circuit. After learning what he could, he would send a message back to his captain.

Answer 2.—I would transmit it to the colonel, and have the troops on my right and left advised.

SHEET NO. 5.

Answer.—After personally reconnoitering the enemy as well as I could, I would have one platoon advance dismounted through the cornfield, keeping concealed by the corn if it was

still standing, and trying to get position on the ridge on which the W. R. Cross house stands. This platoon would develop and hold the attention of the enemy, while I with the other platoons would ride via the by-roads, through the woods, taking care to keep under cover and to watch out for the enemy, and come out on the Henry House hill. This would take the enemy in reverse.

SHEET NO. 6.

Answer No. 1.

SENDING DETACHMENT.
Troop A, 1st Cav.

| | | |
|--------------------------------|---------------|------------|
| LOCATION | DATE. | TIME. |
| Stone House Warrenton Pike. | 15 Oct., 19—. | 9:30 A. M. |

No. 3

To Adjutant First Cavalry, Warrenton Pike:

Found one-half troop hostile cavalry at Buck Hill. It got away at gallop toward Poplar Ford. My patrols report Stone Bridge held by strong force of enemy. From Henry House have just seen with glasses artillery on hill at A. F. Kendall's, northeast of Poplar Ford. I estimate four batteries. Troop on my left reports Sudley Ford held by enemy, and line of trenches occupied on ridge south of Sudley mansion. Troop on my right reports Ball's Ford held in force by enemy. I will keep contact and try to learn more about enemy in my front.

K.,
Captain.

Answer 2.—I conclude that the Blue army has not marched across the country shown on my map, but has marched eastward by roads north of this section; that the cavalry seen by the negro at Catharpin was probably a flanking detachment; that the Blue army has made a turning movement east of the Bull Run toward the south and has taken up a defensive position behind that stream to dispute the further advance of the Brown army toward Washington; that the cavalry found at Buck Hill and the patrols seen during the day were employed by the Blues to keep touch with the Brown force and to obstruct and delay reconnaissance by the Brown cavalry.

EXERCISE ON THE TERRAIN. CAVALRY SCREEN. SHEET NO. I.

General Situation.

(TROOPS IMAGINARY.)

An independent division of the (Brown) Army of The Missouri has concentrated at Platte City, Missouri, preparatory to a forward movement against a similar force of the Blue army, reported to be moving eastward from the vicinity of Valley Falls, Kansas.

*Special Situation (Brown).*HEADQUARTERS FIRST (BROWN) CAVALRY,
FIRST CORPS, ARMY OF THE MISSOURI.FIELD ORDERS } FORT LEAVENWORTH, KAS.
No. 6. } 28 Oct., '04, 1:00 P. M.

1. The enemy is reported moving eastward from the vicinity of Valley Falls, Kansas. Our First Corps is at Platte City, Missouri.

2. The regiment will at once move out as a screen to locate and delay the advance of the enemy, until our main body is across the Missouri River. The screen disposition will be such as to cover all roads leading to the west between Kickapoo on the north, and Metropolitan Avenue on the south.

3. (a) Major A— will command the contact troops consisting of the First Squadron and Troops E and F of the Second Squadron.

(b) Major B— will command the Third Squadron in support, disposed in columns of two troops each, in rear of the centers of the right and left wings, respectively, of the contact troops.

(c) Troops G and H will constitute the reserve and will be reported at once to the regimental commander.

4. The pack trains will be concentrated at Fort Leavenworth, until further orders.

5. Communications addressed to the regimental commander will reach him at Fort Leavenworth until 4 P. M., at which hour further instructions will issue.

By order of Colonel D—

E— F—,

*Captain and Adjutant First Brown Cavalry,
Adjutant.*

Dictated to Squadron Adjutants.
 Copy to Regimental Commissary.
 Copy to Regimental Quartermaster.
 Copy to Regimental Surgeon.
 Copy to Corps Commander.

You receive the following:

*The Commanding Officer, Troop B, First Brown Cavalry,
 Present:*

SIR:—Complying with the provisions of Regimental Field Orders No. 6 (copy herewith), you will at once proceed with your troop via the route 1-3-7-11-23-25-27-51. Keep contact with Troop A on your right and Troop C on your left.

By order of Major A—— H—— K——
1st Lt. and Squad. Adjt. 1st Cav. (Brown).

Required: 1. State briefly the number of patrols you will at once send out—give strength and composition of each—and instructions to each (number patrols from right).

2. What consideration governs the question of strength of patrols in this case?

Time allowed, twenty-five minutes.

Refer to Fort Leavenworth map and also to large-scale map in JOURNAL NO. 54.

SHEET NO. 2.

Special Situation (Brown) Continued.

When you arrive near Hancock Hill, a messenger brings you information to the effect that the Millwood Road bridge across Salt Creek is destroyed, and that the high stage of the water renders a crossing very hazardous.

Required:

1. Mention the general direction in terms of the points of the compass, in which a messenger must travel from your present position, in order to reach the reserve of the screen.
2. Is the country to the west and north especially adapted to cavalry used as a screen, or do you think the ground is too broken?
3. Would you be compelled to hold your troop on the main road or are you able to spread out across the country?

4. Under the conditions of the problem, which is the more important in your case, security or information?

5. State definitely (a) How much dependence you place on your patrols when considering your own security. (b) How much dependence the corps commander places on the first Brown cavalry for security.

Time allowed, twenty minutes.

SHEET NO. 3.

Special Situation (Brown) Continued.

You are at the junction of the Millwood Road with one leading to the north. You decide to make a personal reconnaissance of the settlement which you descry to the north.

Required:

1. A brief report in the form of a message to the proper address, containing information of a military nature obtained by you during your reconnaissance.

Time allowed, forty-five minutes.

SHEET NO. 4.

Special Situation (Brown) Continued.

The following message arrives from a patrol to the west:

Patrol No. 1. 21 28 October, '04, 3:10 P. M.
Troop B, 1st Cav.

The Commanding Officer, Troop B, First Brown Cavalry, Between 9 and 11 (main road):

Road branches here to west, southwest and south. Blue patrols of unknown strength on all branches within one-quarter mile of forks. Cannot advance. Am undiscovered.

L—,

Sergt. Troop B, Comm'dg Patrol.

Required:

1. The means you propose taking in order to supplement the above information.

2. How far are you from Fort Leavenworth?

3. How do you intend to notify the commanders of the troops on your right and left with a view to obtaining their co-operation in the move contemplated in your answer to the first question on this sheet?

Time allowed, twenty minutes.

SOLUTION. SHEET 1.

Answer 1.—I will send out three patrols; the patrol on the right (No. 1) will be composed of six troopers under a noncommissioned officer; its orders are to move out to the right front, and to stick to roads, sending individual scouts to its front, and for the examination of particular points. It will also be charged with maintaining communication with the troop on my right until further orders.

The second patrol will be under the command of an officer and will consist of two sets of fours; it will move out to the front on the main road, and will be from about a mile to a mile and a half in advance of the remainder of the troop. The patrol commander is charged with rapid reconnaissance to the front and flanks with a view to preventing the surprise of the main body. He also has enough men to hold an important point in case he develops the enemy, until he can be reinforced, or be directed to fall back, as the case may be.

The third patrol will move out to cover the left front with orders corresponding to those of patrol No. 1. Its composition, too, will be the same.

Answer 2.—The main consideration is that the safety of the troops of the screen depends upon the information their patrols send back. This consideration demands that the patrols be small, so that they will not unduly attract attention. They must be strong enough to brush aside small observation patrols of the enemy if met, and to permit of the sending of information to the rear without being rendered too weak.

SHEET 2.

Answer 1.—Southeast.

Answer 2.—I am of the opinion that the area mentioned is unusually favorable for the action of cavalry on screening duty. It is not too broken, and parallel and lateral roads abound.

Answer 3.—I can send patrols in any direction, and am able to spread out to any extent desirable.

Answer 4.—Information, for the reason that it dominates security.

Answer 5.—(a) No dependence whatever, beyond the information they are expected to send back. The patrol ahead on the main road may make a stand, but no dependence is placed upon its ability to do so.

(b) None whatever. Information is the important thing.

SHEET 3.

Answer 1.—Troop B First Cavalry, Kickapoo, Kas., Oct. 28, 1904. 3:30 P. M.

No. 2.

The Commanding Officer (or Adjutant) First Cavalry, Fort Leavenworth, Kan.:

Kickapoo, Kansas, on bluff overlooking and one-half mile from Missouri River. Population about fifty. Two churches and one school house of wood, capable of sheltering 500 troops. Forage plentiful, other supplies limited. The Missouri Pacific Railroad has station here; no telegraph instrument, eight wires, siding, is on heavy grade to north. Water good and plentiful. Camp site excellent for any number of troops. Good defensive position. Numerous horses, beefeves and some poultry.

C—,

Captain, Commanding Troop B.

SHEET 4.

Answer 1.—Move up promptly to the patrol sending the information, and send scouts to work round towards both flanks; also notify the patrols immediately on my flanks; cover is excellent, so nothing can interfere with my scouts except superior numbers of the enemy.

Answer 2.—Five and one-half miles.

Answer 3.—By courier along the road 9-11-13, and to the front (west) from 9 and 13.

Note: In the solution of the foregoing problem, brevity was insisted upon in the answers. No maps were given to or allowed the officers who were solving the problem. They were thus compelled to use their own judgment and depend upon the evidence of their own senses. The problem was solved on the ground.

MANEUVER WITH TROOPS.* CAVALRY SCREEN.

General Situation.

A Brown army is advancing through Missouri to invade Kansas, which is defended by a Blue army.

Special Situation (Brown).

The First Brown corps will cross the Missouri River between Atchison and Leavenworth. Its Third Division, screened by the First Brown cavalry, will cross at Fort Leavenworth.

The First Brown cavalry crosses the river just before noon, October 31, 1904, and the regimental commander immediately issues the following order:

FIELD ORDERS,
No. 2.

HEADQUARTERS FIRST BROWN CAVALRY,
FORT LEAVENWORTH, KAN., 31 Oct., '04. 12 Noon.

- Troops.
- 1. Advanced Squadrons.
- 1st Prov. Squadron,
- Maj. A,
- Troops A and B.
- 2d Prov. Squadron,
- Capt. B,
- Troops C and D.
- 3d Prov. Squadron,
- Maj. C,
- Troops E and F.
- 4th Prov. Squadron,
- Capt. D,
- Troops G and H.
- 2. Reserve,
- Maj. E,
- 3d Squadron.

I. A division of the enemy is camped near Lowemont, Kansas. Our division is advancing on that place, and billeted at Platte City last night.

II. This regiment will continue to screen the advance of our division, and will resume its march at 1:20 P. M. to-day.

III. (a) The First Provisional Squadron will move by the road X-3-5-Kickapoo-17.

(b) The Second Provisional Squadron will move by the road 1-3-5-7-63-Lowemont.

(c) The Third Provisional Squadron will move by the road A-B-D-E-F-20.

(d) The Fourth Provisional Squadron will move by the road Prison Lane-C-2-8-36-44.

IV. The Reserve will remain at Fort Leavenworth until 4 P. M., and will then follow the Third Provisional Squadron.

V. The pack train escorted by one officer and fifteen troopers from the Reserve will follow the Reserve at one mile.

VI. The regimental commander will be with the Reserve.

By order of Colonel F.,

G. H.

Adjutant First Cavalry.

Dictated to
Field and Staff Officers
and captains commanding Prov. Squadrons.
Copy to Division Commander.

Fort Leavenworth map.

* The enemy is imaginary.

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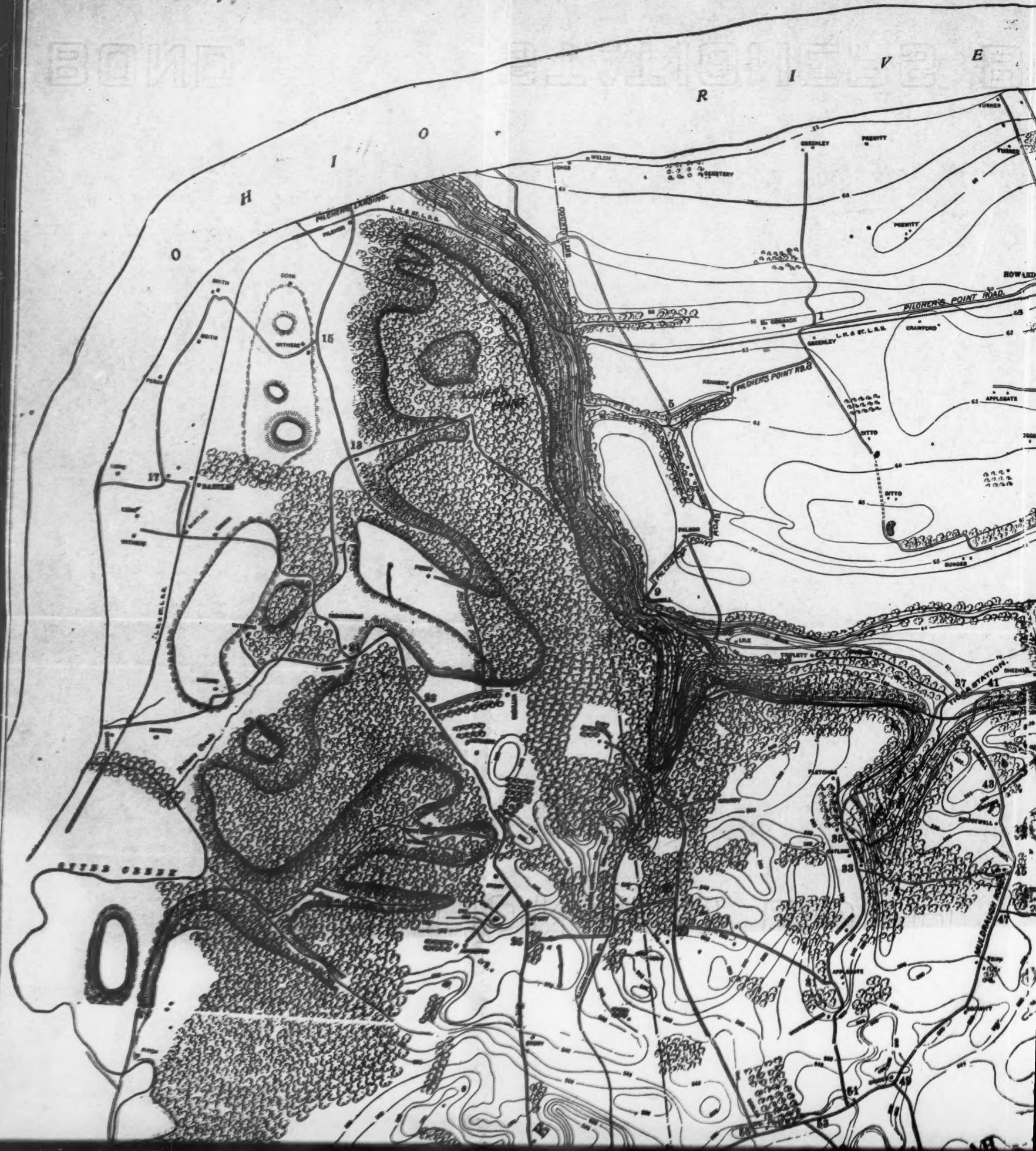
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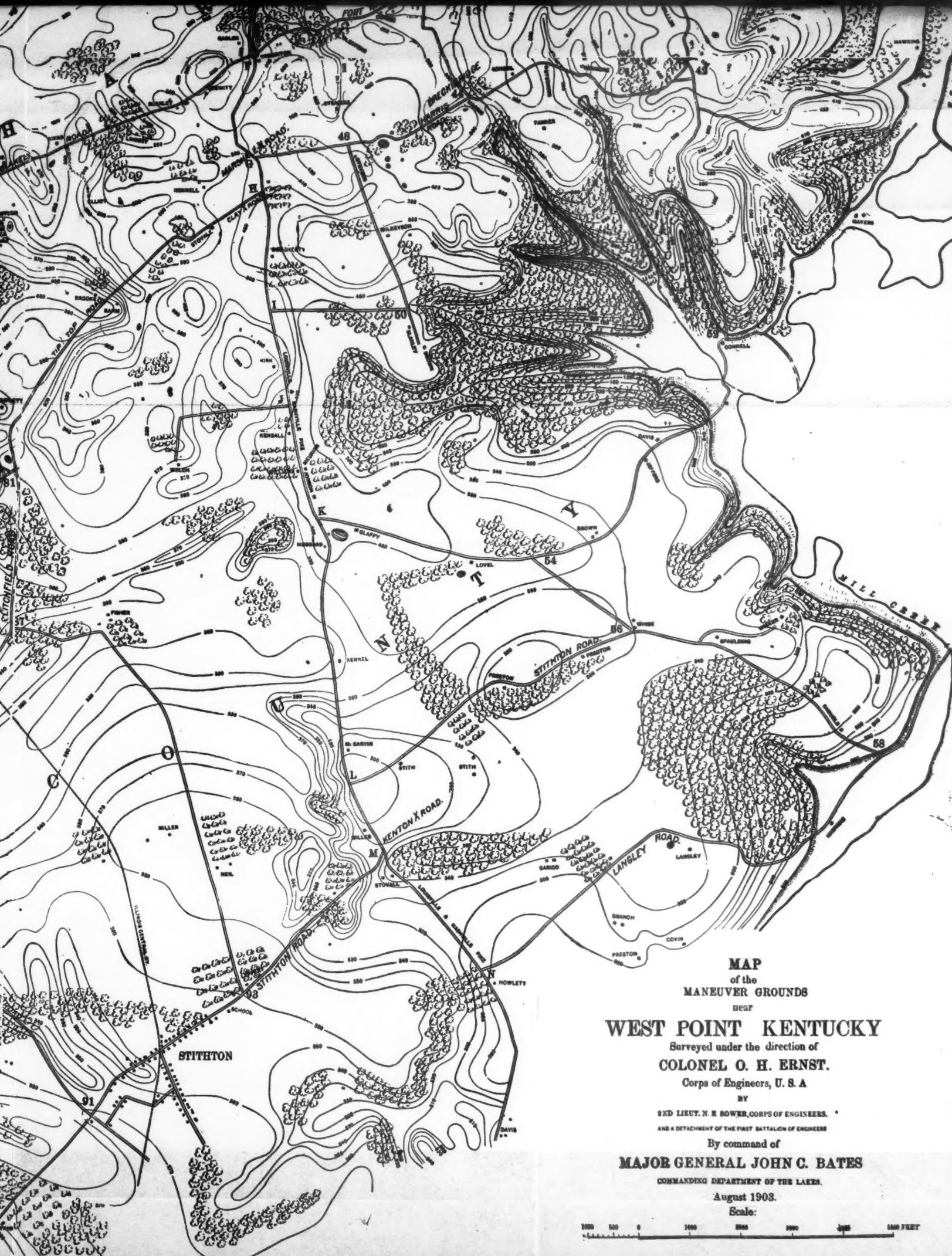
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MAP
of the
MANEUVER GROUNDS
near

WEST POINT KENTUCKY

Surveyed under the direction of

COLONEL O. H. ERNST.

Corps of Engineers, U. S. A.

四

2ND LIEUT. N. E. BOWER, CORPS OF ENGINEERS.

AND A DETACHMENT OF THE FIRST BATTALION OF ENGINEERS

By command of

By command of
MAJOR GENERAL JOHN C. BATES

COMMANDING DEPARTMENT OF THE LAKE.

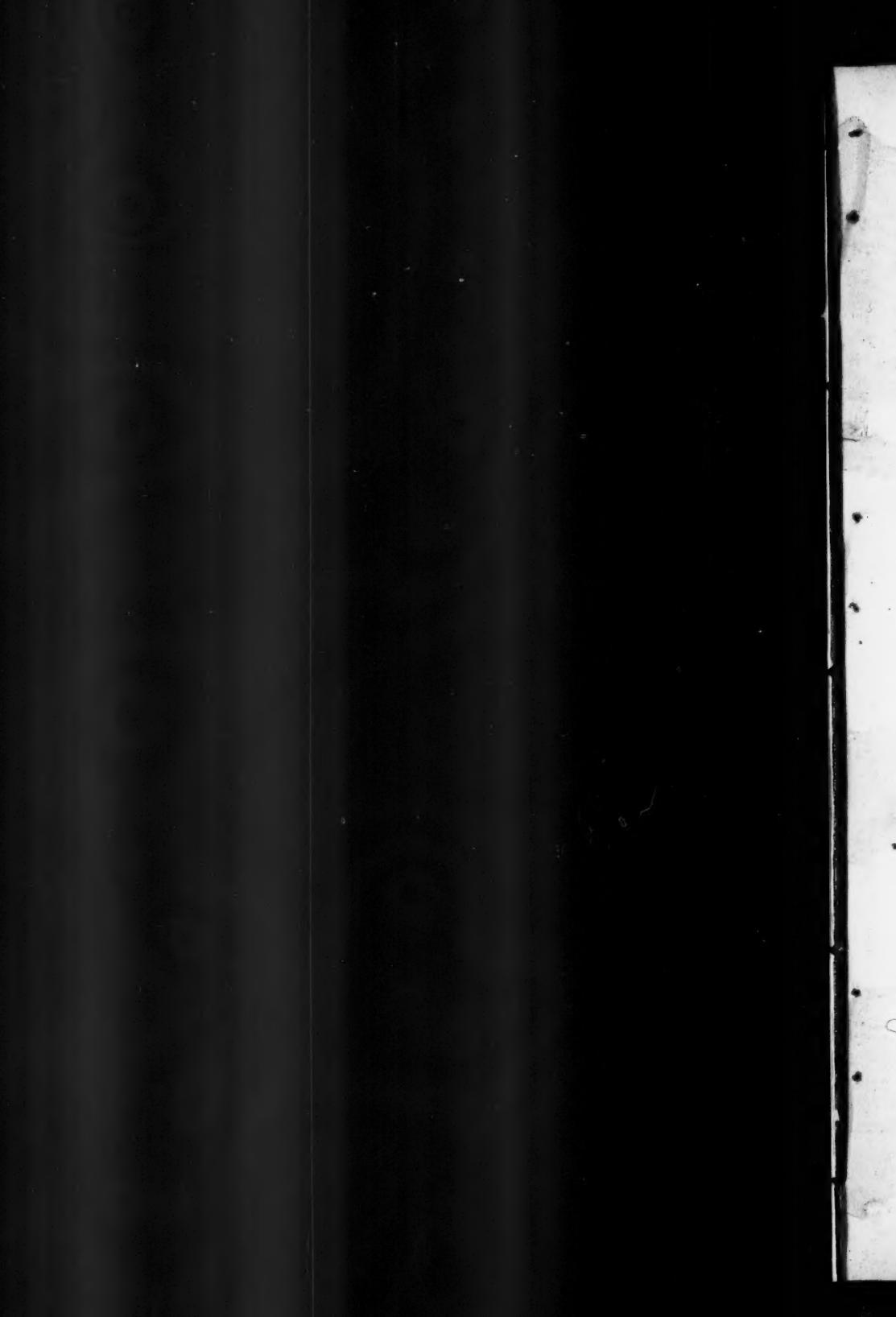
August 2003

August 1903.

Scallop:

1

1000 500 0 2000 3000 4000 5000 6000 FEET



MAP PROBLEM. ADVANCE GUARD. CAVALRY.

(West Point Map.)

General Situation.

A Brown army at Corydon, Indiana, controls the country north of the Ohio River. The country south of the Ohio River is in the possession of the Blues, whose army is concentrating at Bowling Green, Kentucky.

Special Situation (Brown).

Having learned of the collection of enemy's stores at various points in Kentucky along the line of the Illinois Central Railway, the Brown commander detaches the First Brigade, First Division, Cavalry Corps, with orders to find and destroy the Blue depots, and to gain information of the enemy's forces. The engineers are charged with the construction of a ponton bridge across the Ohio River to Greenley, Kentucky, ready for the passage of the cavalry brigade by 8 o'clock A. M., August 14, 1904. In compliance with these instructions, Brigadier General O., commanding the designated brigade issued the following order:

FIELD ORDERS,
No. I.

HEADQUARTERS FIRST BRIGADE, FIRST DIVISION,
CAVALRY CORPS, BROWN,
DOGWOOD, INDIANA, 13 August, '04, 3 P. M.

Distribution of Troops:

1. Advanced Guard.
Major A. B. C., 1st
Cavalry.
1st Squadron, 1st Cav-
alry.
2. Main Body (In order
of march).
1st Cavalry (less 1st
Squadron).
2d Cavalry.
3d Cavalry (less two
troops).
3. Rear Guard.
Captain F. G. H., 3d
Cavalry.
Troops L and M, 3d
Cavalry.

1. The enemy is concentrating in the vicinity of Bowling Green, Kentucky, and has established supply depots at various points in that State along the line of the Illinois Central Railway.

Our main army is in the vicinity of Corydon, Indiana.

2. This brigade will cross into Kentucky with a view to gaining information of the enemy and finding and destroying his depots.

3. The advance-guard will march at 6 A. M., to-morrow, and cross the Ohio River by the ponton bridge to Greenley, Kentucky, whence it will proceed via the Louisville & Nashville Pike toward Vine Grove, paying especial attention to the line of the Illinois Central Railway.

4. The main body will follow the advance-guard at 1,500 yards.

5. The rear-guard will follow the main body at one-half mile.

6. No baggage will accompany the command.

7. Reports will reach the Commanding General at the head of the main body.

By command of Brigadier General O.

R. S. T.

Capt. First Cavalry, Adj't. Gen'l.

Copy to
Regimental Commanders.
C. O. Advance Guard.
C. O. Rear Guard.
Brigade Quartermaster.
Brigade Commissary.
Brigade Surgeon.
Adjutant General First Division, Cavalry Corps (Brown).

Note: The strength of a troop of cavalry is taken to be three officers and 100 enlisted men.

Dogwood, Indiana, is situated nine and one-half miles north of Greenley, Kentucky.

Corydon, Indiana, is about nine miles north of Dogwood. Vine Grove, Kentucky, is ten miles south of Stithton. Bowling Green, Kentucky, is seventy miles south of Stithton.

Required: Discuss the situation from the standpoint of Major A. B. C., First Cavalry, commanding the advance-guard, and what steps he will take to carry out the provisions of Field Orders No. 1.

Write the order of Major A. B. C., First Cavalry, for the operations of August 14th.

SOLUTION.

The country north of the Ohio River is controlled by the Browns. Moreover, the engineers who are charged with the construction of the ponton bridge across the river, have preceded the cavalry column as far as Greenley, Kentucky; hence the advance-guard will be relieved from the performance of reconnaissance duty until it shall have crossed the Ohio and entered the enemy's country. It rests with Major A. B. C. to determine whether or not he will conduct his squadron as a compact body to Greenley, and there take up his advance-guard formation, or whether he will make the primary division of his force into vanguard and reserve before he reaches that point. As he is to precede the main body by forty-five minutes in leaving camp at Dogwood, he will be permitted to gain his distance of about two miles from the head of his advance-guard to the head of the main body without increasing the gait over the regular rate of march at the beginning of the day's work. This was evidently the intention of the brigade commander in directing

the advance-guard to precede the main body at the time indicated in Paragraph 3 of Field Orders No. 1. In this connection, therefore, all that Major A. B. C. has to do is to conduct his squadron across the river to Greenley and there form his advance-guard so as not to delay the march of the main body. So far as the data will permit, his plans for the operations of the advance-guard should be formed in advance, and his orders distributed so that the troops can move out from Greenley in proper formation without delay.

The province of the advance-guard is to provide for the security of the main body and furnish it with all necessary information, reconnoitering the country for a distance of three miles on either side of the line of march and paying especial attention to the line of the Illinois Central Railway. The reconnaissance must include search for the enemy's stores, so that the brigade commander may be informed of the presence of such stores at any point. The destruction of these stores when found do not come within the province of the advance-guard. The time necessary for the destruction of property would delay the march of the advance-guard and hence limit its reconnaissance. The results to be obtained must be clearly stated in the orders issued by Major A. B. C., so that there will be no doubt of their being understood by his troop officers, upon whom the duties of the reconnaissance will fall.

The road over which the column is to march is fixed by Field Orders No. 1. To the west of this road, and running nearly parallel to the railway, is the Pilcher's Point, Dickson and Bloomington Road. A body of cavalry marching by way of this road would be able to keep in close touch with a patrol on the line of the railway itself, and at the same time reconnoiter the country east of Otter Creek, including the towns of Garnettsville and Grahampton. One platoon could accomplish this result, detaching scouts or small patrols to cover the roads to the west of the indicated road. The detachment of a larger force than a platoon would weaken the advance-guard without accomplishing any greater results. This flanking detachment is not in the nature of a "flank guard," but is charged with the duties of

observation. Moreover, it should be a part of the vanguard and under the orders of the vanguard commander. While it might appear that the designation of a platoon to perform this duty, and outlining the road by which it would advance would better be within the province of the vanguard commander, still Major A. B. C. is justified in impressing his view of the necessity of this reconnaissance upon his subordinate officer, leaving to him the working out of the details for its accomplishment. By mentioning it specifically in his advance-guard orders, Major A. B. C. becomes assured that his wishes will be accomplished, an assurance he could not feel if the vanguard commander had gained a different idea of the requirements of the situation. The line of the Illinois Central Railway is mentioned in Field Orders No. 1, which direct that "especial attention" be paid to its reconnaissance. This work should be entrusted to an officer's patrol so as to guarantee its successful performance. Mention of this also comes properly in the order of the advance-guard commander.

To the east of the line of march lies the town of West Point. This place should be reconnoitered by a force larger than a small patrol. Another platoon from the vanguard could perform this reconnaissance, and then march by way of Fort Hill, 2-28-26-24-22-20-36-38-40, etc., parallel to the main line of march and covering the left bank of Salt River and Mill Creek. There are a number of side roads leading out to the east from this road, and if this flanking detachment were composed of only one squad, but few small patrols or scouting parties could be sent to reconnoiter each road without completely frittering away the strength of the party, or else so delaying its advance that it would be unable to keep pace with the main advance-guard. Intermediate roads should be covered by small patrols, sent out from the vanguard and maintaining connection with the two flanking patrols above mentioned.

The use of two platoons has now been arranged. Assigning two troops to the vanguard would permit the vanguard commander to detach two platoons for flanking detachments and retain one and one-half troops for use on the

main line of the advance and on the roads branching from it. This division of the squadron gives:

Vanguard: Troops A and B, First Cavalry.

Reserve: Troops C and D, First Cavalry.

The command of the vanguard would devolve upon the senior captain on duty with the troops assigned to it, but he should be mentioned by name in the order, so that there could be no question upon the part of officers or noncommissioned officers as to whom they should send their reports to when out with patrols. The position of Major A. B. C., as advance-guard commander, is properly with the reserve, so that he would retain command of that body himself. Nevertheless he should mention this position in his orders so that messengers would know where to find him without delay.

Having outlined his plan for the following day, Major A. B. C. may either distribute his orders on the evening of the 13th of August, or he may wait till the following morning. Field Orders No. 1 provide for the assembling of the squadron ready to march by 6 A. M. on the morning of the 14th. By calling his troop commanders together a few minutes before 6 o'clock, he will be able to give them their orders so that they can march off at once, with the orders fresh in their minds. If, during the night, additional information about the enemy should come, or any change be made in the orders from brigade headquarters, he could incorporate such change in his orders the following morning and not be compelled to announce that previous orders issued the night before had to be modified. Hence, it will be best to give his orders verbally to his troop commanders just before the squadron moves out from Dogwood.

Field Orders No. 1 state that the brigade will march in the direction of Vine Grove, Kentucky. The advance of the brigade into the enemy's country is dependent upon a number of contingencies, none of which can be foreseen. Hence, Major A. B. C. can only fix the road by which his vanguard is to march, leaving the destination to be determined as the circumstances of the case may arise, or as may be fixed by further orders from brigade headquarters.

Major A. B. C., therefore, directs that his officers assemble at 5:50 A. M., August 14th, to receive orders; the squadron to be formed ready to march at 6 A. M. The orders issued follow:

ADVANCE-GUARD ORDERS,
No. 1.

- Distribution of Troops:
 1. Vanguard.
 Captain L. M.
 Troops A and B.
 2. Reserve.
 Troops C and D.

FIRST SQUADRON FIRST CAVALRY,
DOGWOOD, INDIANA, 14 August, '04, 5:50 A. M.

1. The enemy is concentrating in the vicinity of Bowling Green, Kentucky, and has established supply depots at various points in that State along the line of the Illinois Central Railway.
 Our main army is in the vicinity of Corydon, Indiana.
 Our brigade will cross into Kentucky with a view to gaining information of the enemy, and finding and destroying his depots.
2. This squadron will act as advance-guard to the brigade, and will reconnoiter for the enemy and his depots.
3. The vanguard will march at once and cross the Ohio River by the pontoon bridge to Greenley, Kentucky, whence it will proceed via 1-3-B, and the Louisville & Nashville Pike toward Vine Grove, Kentucky. It will reconnoiter the country for a distance of three miles on either side of the line of march. One platoon will be detached to march via the road Pilcher's Landing—15-13-21-23-25-59-61-79-77-89-91, reconnoitering as far west as Otter Creek. One platoon will be charged with the reconnaissance of West Point and the line of Salt River and Mill Creek. An officer's patrol will reconnoiter the line of the Illinois Central Railway. Intermediate roads will be covered by small patrols.
4. The reserve will follow the vanguard without distance as far as Greenley, Kentucky, where it will halt until the vanguard shall have gained 1,200 yards.
5. Reports will reach the advance-guard commander at the head of the reserve.

By order of Major C.

W. H. R.,

1st Lieut. and Squadron Adj't. 1st. Cavalry,

Adjutant.

Verbally to assembled troop commanders.
 Copy to Adjutant-General First Brigade.

EXERCISE ON THE TERRAIN. ADVANCE AND REAR GUARDS.

General Situation.

(Troops Imaginary.)

- A Brown corps is concentrating at Atchison.
 A Blue corps is marching north along the Missouri River from Kansas City, Kansas.

Special Situation (Brown).

One Brown division has not arrived at Atchison. In order to enable this division to reach Atchison before the enemy can attack that point the Brown commander sends a provisional cavalry brigade south to meet and retard the advance of the Blue corps.

This provisional brigade has arrived at Fort Leavenworth. You have command of the advance-guard, which consists of one squadron, of four troops, of one hundred men each, with orders to proceed via Pope and Grant Avenues to Leavenworth, thence south along the Leavenworth-Kansas City Road. Upon encountering the enemy you are to take advantage of every opportunity to retard his advance so that the main body of the cavalry can prepare and occupy a defensive position.

SHEET 1.

Question.—Describe the position and formation of your advance-guard when the main body is at the corner of Pope and Grant Avenues.

SHEET 2.

Your advance party from near Grant Hill reports three of the enemy's infantry patrols in sight near the northern edge of Leavenworth.

Question.—What information will you endeavor to obtain?

SHEET 3.

You have ascertained that the enemy has a large force and that he is advancing along Grant Avenue.

Question 1.—What action will you take?

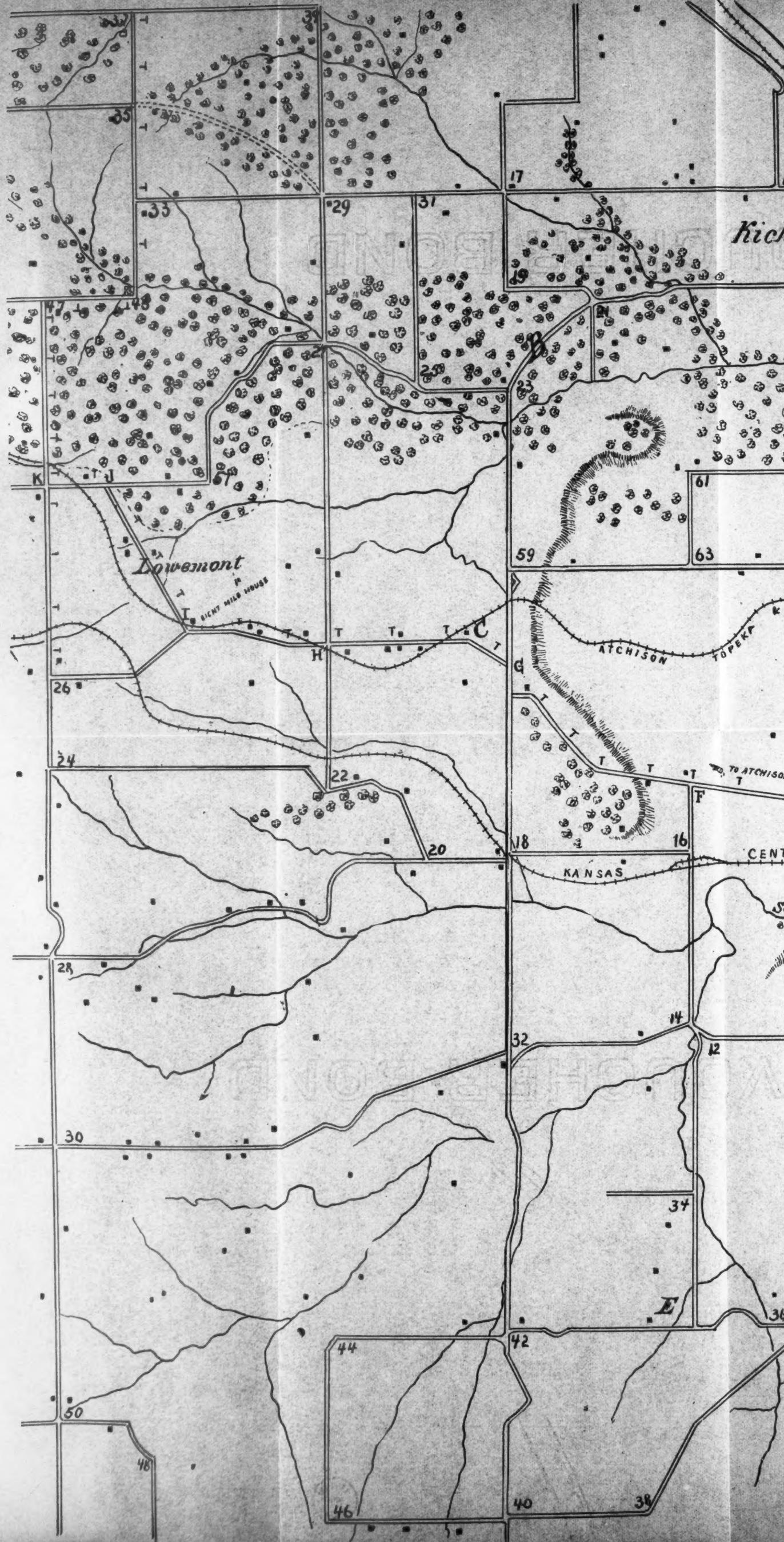
Question 2.—What disposition will you make of your advance guard?

SHEET 4.

The enemy has deployed a large force and is preparing to attack. You must withdraw.

Question 1.—Describe the manner of your withdrawal.

Scale 2"-1 mile





on the Garden Road, each consisting of four men and a non-commissioned officer. The support would be about, at this time, 700 yards in rear of the reserve on Grant Avenue. There should be a right and left flanking party from the support—the first on Farragut Avenue, about Rabbit Point, and the second on Prison Lane. The rear party would just be leaving Pope and South Merritt Hills, with the point and flankers preparing to retire.

MANEUVER WITH TROOPS.

ADVANCE AND REAR GUARDS. SHEET I.

General Situation.

A division of the Blue army is in camp about twenty miles north of Fort Leavenworth, on the west of the Missouri River. A division of the Brown army is in camp about twenty miles south of Fort Leavenworth, on the west of the Missouri River.

Special Situation (Blue).

A report having been received by the division commander to the effect that a large number of arms intended for the enemy is hidden in the Missouri Pacific depot, at Leavenworth, a special reconnaissance of one squadron has been sent to capture the arms. The reserve of the advance-guard, marching via West End Parade, Farragut Avenue and Fifth Street has reached the West End Parade, when you receive orders to relieve the advance guard (imaginary) with your troop and proceed to Leavenworth. Accordingly, you will form advance-guard at 1:30 P. M. to-day and proceed over the route designated.

Note: When recall is ordered by the senior umpire, the troops will be assembled and marched back to the West End Parade and dismissed.

MANEUVER WITH TROOPS.

ADVANCE AND REAR GUARDS. SHEET 2.

General Situation.

A division of the Blue army is in camp about twenty miles north of Fort Leavenworth on the west side of the Missouri River. A division of the Brown army is in camp about twenty miles south of Fort Leavenworth on the west side of the Missouri River.

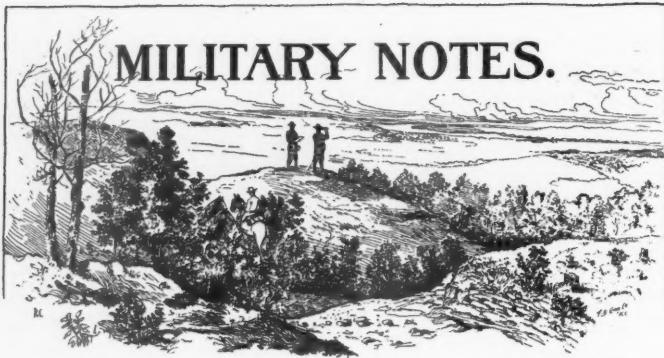
Special Situation (Brown).

A report having been received by the division commander, to the effect that a large number of arms, intended for the enemy, is hidden in the old Post Exchange building at Fort Leavenworth, a special reconnaissance of one squadron has been sent out to capture the arms. The reserve of the advance-guard, marching via Leavenworth, Fifth Street, Farragut Avenue and West End Parade has reached the corner of Dakota and Fifth Streets, when you receive orders to relieve the advance-guard (imaginary) with your troop. Accordingly you will form advance-guard at 1:45 P. M. to-day and proceed over the route designated.

Note: When recall is ordered by the senior umpire the troops will be assembled and marched back to the West End Parade and dismissed.

Refer to Fort Leavenworth map, and large-scale map in JOURNAL No. 54.

MILITARY NOTES.



THE COLT'S REVOLVER.

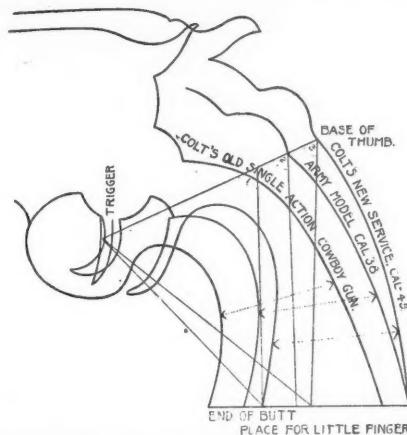
BY CAPTAIN ALONZO GRAY, FOURTEENTH CAVALRY.

IT is interesting to make a comparison of the different models of the Colt's revolver, and to consider how they affect the cavalry service.

1st. The "cowboy gun," single action, caliber .45, the model in use by the army up to about 1892. The general outline of the different makes of this model is the same, the only difference being in minor details, such as attaching the ejectors. The caliber is all right. It is better expressed by saying that it is not too small. The chief objection to the pistol is its ejector, which blows off, and is slow of action. I recently armed my troop with this pistol, on account of its caliber, and about half of the ejectors have blown off. A serious objection to it is, that it constantly shoots loose. The shape is such that it is easily manipulated (see triangle No. 1, cut), the relative distances between trigger, base of thumb and butt being such that a man with a short clumsy hand can cock it easily by placing the little finger under-

neath the butt. To sum up this pistol, its shape is good, its caliber excellent, its mechanism very poor, the single action being no particular disadvantage.

2d. The present Army Model, caliber .38, (see triangle No. 2, cut) has a better mechanism, but every cavalry officer will admit that it was a great mistake to reduce the caliber. The single action feature is not so desirable as No. 1 on account of its larger triangle. This triangle is enlarged by reason of the trigger's being set forward to give greater leverage to the double action. The mechanism is somewhat delicate, and no ordinary soldier has any business taking it apart. I might here say that I consider any length of barrel



over five inches as superfluous and a nuisance. An effort has been made to make this an arm of precision, and it is no doubt more accurate than No. 1, as proved by the fact that my troop this year averaged twenty per cent. less armed with No. 1 than it averaged last year armed with No. 2. However, as we used black powder, I am not prepared to say that a smokeless powder will not give better results. I believe it will. I have no objection to the double action, but I do not regard it as essential. If a man had a stiff or lame hand, the double action would be better.

3d. The so-called "New Service" revolver is in many ways an improvement. I learn that the name "New Ser-

vice" is one adopted by the manufacturers, and not, as many suppose, because there is any intention on the part of the War Department to adopt it. The caliber is all right; the length of barrel is good; the mechanism is splendid and much less liable to get out of repair than the caliber .38. An ordinary soldier can clean it inside without any damage to the pistol. The double action feature is easier for the reason that the trigger is set farther forward than it is on the caliber .38, thus increasing the length of leverage, but the triangle is thereby enlarged. This triangle is further enlarged by making the butt three-eighths of an inch longer; thus the triangle, formed by the first finger on the trigger, the little finger under the butt and the thumb on the hammer, is so great that the hand of ordinary size cannot readily manipulate the piece.

In using the double action, many men can only reach the trigger with the tip of the first finger; and, in using the single action, few men can place the thumb on the hammer and the little finger underneath the butt. The extra length of the butt can be remedied by simply cutting it off. There is no mechanism in the lower half. If the butt were cut off one-half inch, the revolver would be all right for single action, and the double action feature is not important.

The swivel for a lanyard is good, and should be retained. The lanyard should be issued, and the open cowboy holster should be adopted for use on the right side, with the butt carried to the rear.

During my service here I have repeatedly seen soldiers riding through a bunch of Moros with their revolvers reversed in the holsters so that they could get a quick shot. It is often just as important for a cavalryman to get a quick shot as it is for a cowboy.

I now get to my pet hobby, which is caliber.

It would be interesting to take a census of the opinions of all cavalry officers and learn just how they stand on this subject. If they, with few exceptions, all want a .45 caliber, and I believe they do, there is no logical reason why they should not have it. We are the persons that have to fight with the weapon and whose lives are dependent upon its effective-

ness. Nobody need talk about precision. One wants his opponent to stop when he is hit, and one would take no more satisfaction in being killed by a European after he had been fairly hit than one would in being cut down by a Moro.

This "New Service" model, if a half inch were cut off the end of the butt, is the best yet put out by the Colt people. There is every reason why it should be adopted and issued with smokeless powder and leaden bullets; and there is absolutely no reason why it should not be adopted and issued at once.

MALABANG, MINDANAO, P. I.,
May 10, 1904.

THE WEBLEY-FOSBERY AUTOMATIC REVOLVER.

By CAPTAIN GEORGE VIDMER, ELEVENTH CAVALRY.

I AM not writing this article to bring up a discussion of the merits of the large caliber pistol, for I believe that the majority of officers who have had actual experience during the last few years, will uphold me in the statement that the small caliber revolver, or pistol, is a failure.

The .38 caliber belongs to this class, and I believe we committed a grave error in ever giving up the .45, even though the style was antiquated. We must have stopping power; not a shock that will stop for a short time—not a nervous shock, but a good, hard knock-out blow for both man and beast. We do not need a long-range weapon; one that will shoot up to seventy-five yards is sufficient. The pistol is needed at a short range only—the greater number of times under twenty-five yards. Then we need one that will shoot quickly.

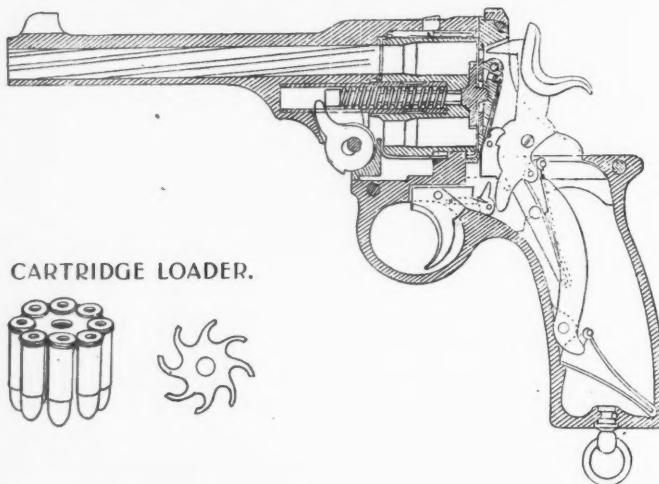
While on duty at the St. Louis Exposition, I came across Webley & Scott's exhibit, and I believe, as do many other officers who have seen the revolver, that they have the weapon for our service.

Webley has for many years made revolvers for the British Colonial service, and we all know the excellence of the W. & C. Scott & Sons guns. These two firms have consolidated, and their manufactures have carried off the highest awards, and their name guarantees a first-class article.

The revolver in question is so simple and readily understood that it seems hardly necessary to give more than a short description of its general points and workings.

The weapon is the outcome of a long series of experiments directed to secure a combination of some of the ad-

SECTION OF REVOLVER AT HALF COCK



CARTRIDGE LOADER.

vantages of automatic pistols with the qualities possessed by the ordinary service revolver. In any double-action revolver the cylinder's rotating and the hammer's rising by the pull on the trigger secure a mechanical rapidity of fire, whereas in the Webley-Fosbery those actions are performed automatically through the instrumentality of recoil. The recoil of the shot does not open the breech; it merely does the cocking, revolves the cylinder one-half a division, or one-half the revolution necessary to bring a fresh cartridge under the hammer, and compresses a spring which in its reaction revolves the cylinder the other necessary half divi-

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It is the intention to correct this list with every issue. If any errors are noted it will be conferring a favor if you will call attention to them.

The Association is anxious to increase its membership and in its efforts to do this all the members can give their assistance. If you know of any prospective members or subscribers, or any person who might be interested in the JOURNAL, the Council will be glad to have the address so that a copy of the JOURNAL may be mailed.

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 Bonius, P. S., lt. col. 6 cav., Ft. Keogh, Mont.
 Boniface, J. J., 1 lt. 4 cav., Ft. Walla Walla.
 Booth, Ewing E., capt. 10 cav., Ft. Leavenworth.
 Boughton, D. H., maj. 11 cav., Ft. Leavenworth.
 Bowdish, Myron B., 2 lt. 10 cav., Ft. Washakie.
 Bowen, W. H., C., lt. col. 13 inf., Main & Seneca
 sts., Buffalo, N. Y.
 Bowie, H., 1 lt. 9 cav., Oklahoma City, Okla.
 Bowman, George T., 1 lt. 15 cav., Ft. Ethan
 Allen, Vt.
 Boyd, Carl, 2 lt. 3 cav., Ft. Yellowstone, Wyo.
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 Brees, H. J., 1 lt. sig. corps, Ft. Leavenworth.
 Brett, Lloyd M., capt. 7 cav., 1340 31st st., Wash-
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 Briand, C., 1 lt. 15 cav., Ft. Ethan Allen, Vt.
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 Brown, L. T., lt. col. 33d & Smallwood sts.,
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 Brown, L. G., 2 lt. 12 cav., Manila.
 Brown, Oscar J., capt. 1 cav., Ft. Sam Houston,
 Texas.
 Brown, R. A., capt. 4 cav., Presidio, S. F., Cal.
 Brown, William C., maj. 3 cav., Ft. Assini-
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 Butler, Rodman, 2 lt. 6 cav., Ft. Keogh, Mont.
 Byram, Geo. L., capt. 6 cav., Ft. Meade, S. Dak.
 Cabaniss, A. A., capt. 24 inf., Ft. Missoula.
 Cable, Wm. A., lt. 103 W 55th st., New York.
 Cabell, De Rosey C., capt. 1 cav., Ft. Clark, Tex.
 Caldwell, R. C., 1 lt. 7 cav., Camp Thomas, Ga.

- Calvert, E., 1 lt. 9 cav., Ft. Leavenworth.
 Cameron, Geo. H., capt. 4 cav., Ft. Riley.
 Camp, Beauford E., 2 lt. 9 cav., Jefferson
 Card, C. S., lt., 1139 Clarkson st., Denver, Col.
 Carlton, C. H., brig. gen. ret., Met. Club, Wash-
 ington.
 Carpenter, E., capt. art., Ft. Totten, N. Y.
 Carpenter, L. H., brig. gen. ret., Philadelphia.
 Carr, Camillo C. C., brig. gen., St. Paul, Minn.
 Carr, Eugene A., brig. gen. ret., Washington,
 D. C.
 Carroll, Henry, brig. gen. ret., Lawrence, Kan.
 Carson, John M., jr., maj. Q. M. D., West Point.
 Carson, L. S., 1 lt. 8 cav., Ft. Sill, Okla.
 Carson, T. G., capt. 10 cav., Ft. Washakie, Wyo.
 Carter, Wm. H., brig. gen., Manila, P. I.
 Cartmell, N. M., 1 lt. 10 cav., Ft. Robinson, Neb.
 Case, Frank L., 1 lt. 12 cav., Manila, P. I.
 Cassidy, H. C., capt., 2295 Calumetave, Chicago.
 Castlel, D. T. E., 1 lt. 7 cav., Camp Thomas, Ga.
 Cathro, Thos. E., 2 lt. 13 cav., 1121 N. West st.,
 Indianapolis, Ind.
 Cavenaugh, H. La T., capt. 10 cav., Ft. Robin-
 son, Neb.
 Chaffee, Adna R., lt. gen., Washington, D. C.
 Chapman, G. L., 1 lt. 25 inf., Ft. Reno, Okla.
 Chapman, L. A., 1 lt. 1 cav., Ft. Leavenworth.
 Chase, Geo. F., lt. col. 12 cav., Manila, P. I.
 Chase, John, brig. gen., Denver, Col.
 Cheever, B. H., maj. 6 cav., Ft. Meade, S. D.
 Chittly, Wm. D., capt. 4 cav., Columbia, Mo.
 Churchill, C. Robert, capt., 407 Morris Bldg.,
 New Orleans.
 Clark, Chas. H., maj. O. D., Springfield, Mass.
 Clark, H. B., lt. art. corps, Ft. Leavenworth.
 Clark, Will H., 913 Marquette Bldg., Chicago.
 Clark, Wm. P., capt. 2 cav., Manila, P. I.
 Clayton, F., Jr., capt. 11 cav., Ft. Des Moines.
 Cleveland, J. Way, 140 Broadway, N. Y.
 Clopton, W. H., Jr., 1 lt. 13 cav., Manila, P. I.
 Cocke, J., 2 lt. 11 cav., Ft. Des Moines, Ia.
 Coffey, Edgar N., 1 lt. 2 cav., Manila, P. I.
 Cole, C. W., 1 lt. 9 cav., Ft. Leavenworth.
 Cole, Geo. M., gen., Hartford, Conn.
 Cole, James A., capt. 6 cav., Ft. Meade, S. Dak.
 Coleman, S., 1 lt. 9 cav., Ft. Leavenworth.
 Collins, R. L., 2 lt. 2 cav., Manila, P. I.
 Collins, Thos. D., maj. Gainesville, Tex.
 Conley, George H., 1 lt. 3 cav., West Point.
 Conklin, John, Jr., capt. art., Ft. Ethan Allen.
 Connell, W. M., 1 lt. 9 cav., Camp Thomas, Ga.
 Conrad, C. H., capt. 3 cav., St. Louis Exposition.
 Conrad, Julius T., capt. 3 cav., Chester, Pa.
 Couverse, G. L., capt. ret., 23 E. State st.,
 Columbus, Ohio.
 Cooley, W. M., 2 lt. 5 cav., Ft. Wingate, N. M.
 Cooper, C. L., brig. gen. ret., State Capitol,
 Denver, Col.
 Coopes, Harry S., 1 lt. 12 cav., Manila, P. I.
 Coppock, E. R., 2 lt. 3 cav., Ft. Apache, Ariz.
 Corcoran, Thos. M., capt. 13 cav., Manila, P. I.
 Cornell, W. A., 1 lt. 10 cav., Ft. Robinson, Neb.
 Cornish, L. W., capt. 9 cav., Jefferson Bks., Mo.
 Coughlan, T. M., 1 lt. 2 cav., Manila, P. I.
 Counselman, W., capt. 335 Rush st., Chicago.
 Cowell, T. R., capt., Parkersburg, W. Va.
 Covin, W. B., 1 lt. 3 cav., Ft. Assiniboine.
 Cowles, W. H., 2 lt. 4 cav., Ft. Walla Walla.
 Cox, Edwin L., 2 lt. 9 cav., Jefferson Bks., Mo.
 Cox, A. B., 1 lt. 8 cav., Jefferson Bks., Mo.
 Craig, H., Jr., 1917 Chestnut st., Philadelphia.
 Craig, J. W., capt. 12 cav., Manila, P. I.
 Craig, M., capt. 10 cav., Ft. Leavenworth.
 Craighill, Wm. E., capt. eng., 166 Gov. st.,
 Mobile, Ala.
 Craigie, D. J., brig. gen. ret., Rochambeau,
 Washington, D. C.
 Crane, Chas. J., lt. col. 8 inf., San Juan, P. R.
 Craycroft, Wm. T., 1 lt. ret., Dallas, Texas.
 Cres, Geo. O., capt. 4 cav., Orchard Lake, Mich.
 Crimmins, M. L., 1 lt. 19 inf., Ft. Leavenworth.
 Croft, E., capt. 2 inf., Ft. Logan, Col.
 Crosby, Herbert B., capt. 14 cav., Manila, P. I.
 Crowder, E. H., col. j. a., Washington, D. C.
 Crozier, Wm., brig. gen., Washington, D. C.
 Cruise, Thos., maj. Q. M. dept., St. Louis.
 Cullen, D., 1 lt. 3 cav., Ft. Assiniboine, Mont.
 Culver, C. C., 1 lt. 3 cav., Ft. Assiniboine, Mont.
 Cunningham, T. H., 2 lt. 8 cav., Jefferson Bks.,
 Curry, W. L., capt., Columbus, O.
 Cusack, Joseph E., capt. 12 cav., Manila, P. I.
 Dade, A. L., capt. 13 cav., Manila, P. I.
 Dallam, S. F., capt. 5 cav., Ft. Huachuca, Ariz.
 Dalton, H. F., 1 lt. 6 inf., Ft. Leavenworth.
 Danforth, C. H., 1 lt. 17 inf., Manila, P. I.
 Davidson, A. H., 1 lt. 18 cav., Manila, P. I.
 Davis, B. O., 2 lt. 10 cav., Ft. Washakie, Wyo.
 Davis, C. O., capt., Corsicana, Tex.
 Davis, E., 1 lt. 11 cav., Ft. Des Moines, Iowa.
 Davis, F. E., 2 lt. 8 cav., Jefferson Bks., Mo.
 Davis, G. B., brig. gen., Washington, D. C.
 Davis, Irv D., capt., Houston, Tex.
 Davis, M. F., capt. 1 cav., Ft. Leavenworth.
 Davis, Norman H., 2 lt. 14 cav., Manila, P. I.
 Davis, T. F., lt. col. 30 inf., Ft. Logan H. Roots, Ark.
 Davis, W., bri. gen. ret., The Albion, Balti-
 more, Md.
 Day, Clarence R., capt. 5 cav., Macon, Mo.
 Dean, W., 1 lt. 15 cav., Ft. Ethan Allen, vt.
 Degen, J. A., 1 lt. 12 cav., Manila, P. I.
 Deltrick, L. L., 1 lt. 13 cav., Manila, P. I.
 Dickman, J. T., capt. 8 cav., War Dept., Wash-
 ington, D. C.
 Disque, B. P., 1 lt. 3 cav., Ft. Leavenworth.
 Dixon, V. D., 1 lt. 5 cav., Ft. Wingate, N. Mex.
 Dockery, A. B., 1 lt. 5 cav., Ft. Winzate, N. M.
 Dodd, G. A., lt. col. 10 cav., 1316 Filbert st.,
 Philadelphia.
 Dodge, C. C., gen., 10 E 76 St., New York.
 Dodge, Francis S., brig. gen., Washington, D. C.
 Dodge, T. A., lt. col. ret., Room 517, 253
 Broadway, New York City.
 Dolan, T. J., capt., 2021 Walnut, Philadelphia.
 Donaldson, T. Q., capt. 8 cav., Ft. Sill, O. T.
 Donovan, A. E., vetn. art., Vancouver Bks.
 Dorcy, B. H., 1 lt. 4 cav., Presidio, Monterey, Cal.
 Dorst, J. H., col. 3 cav., Ft. Assiniboine.
 Dougherty, C. A., 2 lt. 13 cav., Manila, P. I.
 Drake, C. B., capt. 14 cav., Manila, P. I.
 Dudley, Clark D., 1 lt. 14 cav., Manila, P. I.
 Duff, Robt. J., capt. 8 cav., Ft. Riley.
 Duucher, H. M., vetn., Peekskill, N. Y.
 Duvall, W. P., maj. art., Washington, D. C.
 Dyer, Ed. H., maj., Burlington, Vt.
 Early, Orson L., 2 lt. 8 cav., Ft. Riley.
 Eaton, W. R., lt. box 952, Denver, Col.
 Engen, Winfield S., col. 2 cav., Manila, P. I.
 Edmunds, C. W., lt., 425 Walnut st., Philadel-
 phia.
 Edwards, Frank A., maj. 4 cav., Rome, Italy.
 Edwards, Frank B., 1 lt. art., Ft. Hamilton.
 Edwards, Frank B., 1 lt. 4 cav., St. Paul, Minn.
 Edwards, W. W., 2 lt. 10 cav., Ft. Robinson, Neb.
 Elliott, S. L., capt. 11 cav., Ft. Des Moines, Ia.
 Ellis, R. B., 1 lt. 11 cav., Manila.
 Eltinge, LeRoy, capt. 15 cav., Ft. Ethan Allen.
 Ely, E. J., 2 lt. 15 cav., Ft. Ethan Allen, Vt.
 Ely, H. E., capt. 26 int., Ft. Leavenworth.
 Engel, E., 2 lt. 9 cav., Ft. Leavenworth, Kan.
 English, E. G., 2 lt. 5 cav., Ft. Apache, Ariz.
 Enos, Copley, 2 lt. 1 cav., Ft. Sam Houston,
 Texas.
 Enslow, R. S., lt. 10 cav., Ft. Washakie, Wyo.
 Erwin, J. B., maj. 9 cav., Ft. Leavenworth.
 Estes, Geo. H., Jr., capt. 20 int., Manila, P. I.
 Esty, Thos. B., 2 lt. 9 cav., Jefferson Bks.
 Eustes, H. L., lt., 1410 Jackson ave., New Or-
 leans, La.
 Evans, E. W., capt. 8 cav., Jefferson Bks., Mo.
 Evans, Geo. H., capt. ret., 226 Ophelia st., Pitts-
 burg, Pa.
 Fair, John S., 1 lt. 9 cav., Ft. Leavenworth.
 Farber, Chas. W., capt. 8 cav., 513 Broadway,
 Albany, N. Y.
 Farmer, Chas. C., Jr., 1 lt. 10 cav., Ft. Leaven-
 worth.
 Farnsworth, Chas. S., capt. 7 inf., Manila, P. I.

LIST OF MEMBERS.

- Farnum, F. H., 2 lt. 11 inf., Ft. D. A. Russell.
 Faulkner, A. U., 1 lt. art., Ft. Du Pont, Del.
 Fechet, Jas. E., 1 lt. 9 cav., Jefferson Bks.
 Fenton, C. W., capt. paymr (cav.), Manila.
 Fisher, Ronald E., 2 lt. 14 cav., Manila.
 Fitch, Roger S., 1 lt. 1 cav., Ft. Leavenworth.
 Fleming, L. J., capt. Q. M., San Antonio, Tex.
 Fleming, R. J., capt. 10 cav., Ft. Robinson.
 Foerster, L., 1 lt. 5 cav., Ft. Huachuca, Ariz.
 Folz, Fred S., capt. 2 cav., Manila, P. I.
 Fonda, Ferd. W., 1 lt. 10 cav., Ft. Mackenzie.
 Foote, S. M., capt. art., Ft. Myer, Va.
 Forbush, W. C., col. ret., The Markeen, 1291
 Main St., Buffalo, N. Y.
 Foreman, Milton J., maj., 3412 Vernon Ave., Chicago.
 Forsyth, Jas. W., maj. gen. ret., Columbus, O.
 Forsyth, Wm. W., capt. 6 cav., Ft. Keogh, Mont.
 Fortescue, G. R., 1 lt. 10 cav., Washington.
 Foster, A. B., capt. 19 inf., Vancouver Bks.
 Foster, Fred W., maj. 5 cav., Whipple Bks., Ariz.
 Foster, Leo F., capt. art., Ft. Fremont, S. C.
 Fountain, S. W., lt. col. 4 cav., World's Fair Station, St. Louis, Mo.
 Foy, Robert C., 1 lt. 1 cav., West Point, N. Y.
 Frazer, Walter, vet. 13 cav., Manila, P. I.
 Freeman, H. B., brig. gen. ret., Leavenworth.
 Full, C. J., capt., Salinas Cal.
 Fuller, A. M., capt. 9 cav., 405½ W. Depot st., Knoxville, Tenn.
 Fuller, Ezra B., maj., ret., Columbia, S. C.
 Funston, Fred, brig. gen., Chicago, Ill.
 Furlong, J. W., capt. 6 cav., Ft. Meade, S. D.
 Galbraith, J. G., maj. 1 cav., Ft. Des Moines, Ia.
 Gale, George H. G., maj. 1 g. d., Sta. Building, St. Louis.
 Gardenhire, W. C., 2 lt. 15 cav., Ft. Ethan Allen.
 Gardner, Edwin F., lt. col. ret., Holliston, Mass.
 Gardner, John H., capt. 2 cav., Manila, P. I.
 Garity, George, 1 lt. 2 cav., Gen. Hospital, Presidio, San Francisco.
 Garrard, Joseph, lt. col. 14 cav., Manila, P. I.
 Gaston, Joseph A., maj. 1 cav., Ft. Sam Houston, Texas.
 Gatley, Geo. G., capt. art., Manila, P. I.
 Gaujot, Julian E., 1 lt. 11 cav., Ft. Des Moines Iowa.
 Gibbons, H., 1 lt. 9 cav., Ft. Leavenworth.
 Gillem, Alvan C., 1 lt. 4 cav., Presidio s. F., Cal.
 Glasgow, Wm. J., capt. 13 cav., Governor's Island, N. Y.
 Gleaves, S. R., 1 lt. 1 cav., Ft. Clark, Tex.
 Godfrey, E. S., col. 9 cav., Ft. Riley, Kan.
 Godson, W. F. H., 1 lt. 19 cav., Ft. Robinson.
 Godwin, E. A., lt. col. 9 cav., Jefferson Bks.
 Going, R. B., 1 lt. 15 cav., Ft. Ethan Allen.
 Goldman, H. J., capt. 5 cav., Ft. Apache, Ariz.
 Goodale, Geo. S., capt. 23 inf., Manila.
 Goode, George W., capt. 1 cav., Ft. Clark, Tex.
 Goodin, J. A., capt. 7 inf., Manila, P. I.
 Goodspeed, Nelson A., 2 lt. 3 cav., Ft. Assiniboine, Mont.
 Gordon, Geo. A., col., Savannah, Ga.
 Gordon, Wm. W., 2 lt. 2 cav., Manila, P. I.
 Gould, J. H., vetn. 11 cav., Ft. Riley, Kas.
 Graham, Alden M., 2 lt. 1 cav., Ft. Clark, Tex.
 Granger, R. S., 1 lt. art., Ft. Riley.
 Grant, Frederick D., brig. gen., Governor's Island, New York.
 Grant, Walter S., 1 lt. 3 cav., St. Paul, Minn.
 Gray, Alonso, capt. 14 cav., Manila, P. I.
 Greeley, Adolphus W., brig. gen., Washington, D. C.
 Gresham, John C., maj. 15 cav., Ft. Ethan Allen, Vt.
 Grierson, B. H., brig. gen. ret., Jacksonville, Ill.
 Grierson, C. H., capt. 10 cav., Ft. Robinson.
 Griffith, F. D., Jr., 2 lt. 6 cav., Ft. Meade, S. Dak.
 Griggs, Everett G., capt., Tacoma, Wash.
 Groome, J. C., capt., 1222 Walnut st., Philadelphia, Pa.
 Gross, F. W., col., 142 Logan ave., Denver, Col.
- Grout, Paul, 2 lt., 233 Pacific st., Brooklyn, N. Y.
 Grove, W. R., capt. sub. dept., Kansas City.
 Grunert, G., 2 lt. 11 cav., Ft. Des Moines.
 Grutzman, W. K., vetn. 15 cav., Ft. Ethan Allen, Vt.
 Guest, John, capt. ret., 1620 19th st. N. W., Washington, D. C.
 Guillfoyle, J. F., maj. mil. sec. dept., Manila.
 Haight, C. S., 1 lt. 4 cav., Ft. Leavenworth.
 Hardeman, Horace L., lt. col., Real Estate Bldg., Philadelphia, Pa.
 Hall, C. G., capt. 5 cav., Whiterocks, Utah.
 Hall, W. P., brig. gen., Washington, D. C.
 Hammond, Andrew G., maj. 3 cav., World's Fair Station, St. Louis.
 Hammond, C. L., 4627 Greenwood ave., Chicago.
 Hanna, M. E., capt. 3 cav., Ft. Assiniboine, Mont.
 Harbord, James G., col. Phil. Constab., Manila, P. I.
 Hardeman, L., capt. 11 cav., Ft. Des Moines, Ia.
 Hardie, Francis H., maj. 14 cav., Manila, P. I.
 Hardin, E. E., maj. 7 inf., Manila, P. I.
 Harper, Roy B., capt. 3 cav., Ft. Assiniboine, Mont.
 Harris, E. R., 2 lt. 11 cav., Ft. Des Moines, Ia.
 Harris, F. W., capt. 4 cav., Vienna, Austria.
 Harris, Moses, maj. ret., Life bldg., N. Y. City.
 Harrison, Ralph, capt. c. s. (cav.), Manila, P. I.
 Hart, A. C., 1 lt. 10 cav., Ft. Robinson, Nebr.
 Hartman, J. D. L., capt. 1 cav., Ft. Leavenworth.
 Hartman, Charles G., 1 lt. 2 cav., Manila, P. I.
 Hasson, John P., 1 lt. 6 cav., Ft. Meade, S. D.
 Hathaway, C. E., 2 lt. 9 cav., Ft. Riley, Kan.
 Hawkins, Clyde E., capt. 2 cav., Manila, P. I.
 Hawkins, H. S., capt. sub. dept., Denver, Colo.
 Hay, W. H., capt. 10 cav., Ft. Robinson, Nebr.
 Hayden, John L., capt. art., Presidio, San Francisco.
 Hayden, Ralph N., 2 lt. 7 cav., Camp Thomas.
 Hayne, Paul T., Jr., 1 lt. 14 cav., Manila, P. I.
 Hazzard, Oliver P. M., 1 lt. 2 cav., Manila, P. I.
 Hazzard, Russell T., 1 lt. 1 cav., Ft. Clark, Tex.
 Heard, J. W., capt. 3 cav., Ft. Assiniboine.
 Heaton, Wilson G., 1 lt. 13 cav., Manila, P. I.
 Hedekin, C. A., capt. 3 cav., Ft. Apache, Ariz.
 Heitberg, E. R., capt. 6 cav., Ft. Meade, S. Dak.
 Heitz, Grayson V., 1 lt. 14 cav., Manila, P. I.
 Hein, O. L., lt. col. ret., 2137 R st. N. W., Washington, D. C.
 Heintzelman, S., 1 lt. 6 cav., Ft. Leavenworth.
 Hemphill, J. E., 1 lt. sig. corps, Nome, Alaska.
 Hennessey, P. J., 2 lt. 5 cav., Ft. Huachuca.
 Henry, V. Y., capt. 12 cav., Manila, P. I.
 Henry, J. B., Jr., 2 lt. 4 cav., Presidio, S. F., Cal.
 Herman, Fred J., 1 lt. 9 cav., Ft. Riley, Kan.
 Heroy, W. S., lt., 622 Commercial Place, New Orleans, La.
 Herron, Joseph S., capt. 2 cav., Manila, P. I.
 Hershler, F. W., 1 lt. 4 cav., Presidio, S. F., Cal.
 Hickey, J. B., maj. 11 cav., 23d ave., N. Y.
 Hickman, E. A., 1 lt. 1 cav., Ft. Sam Houston, Tex.
 Hickok, H. R., capt. 15 cav., Ft. Ethan Allen.
 Hilgard, M. R., 1 lt. 16 inf., Ft. McPherson, Ga.
 Hill, Wm. P., vetn. 12 cav., Manila, P. I.
 Hill, Zeph T., maj., Denver, Col.
 Hirsch, Harry J., capt. 20 inf., Manila, P. I.
 Hodges, H. L., 2 lt. 1 cav., Ft. Clark, Texas.
 Hodgson, F. G., maj. Q. M. D., Vancouver Bks.
 Hoff, J. V. R., lt. col. M. D., Ft. Leavenworth.
 Holabird, S. B., brig. gen. ret., 1311 P st. N. W., Washington.
 Holbrook, L. R., capt. 5 cav., Ft. Leavenworth.
 Holbrook, W. A., capt. 5 cav., Whipple Bks.
 Holcomb, Freeborn P., lt. 14 cav., Manila, P. I.
 Holliday, Milton G., 2 lt. 15 cav., Ft. Ethan Allen.
 Hope, F. W., lt., Broad and Front sts., Red Bank, N. J.
 Hopkins, A. T., lt., Watertown, S. D.
 Hoppin, C. B., maj. 15 cav., Ft. Ethan Allen, Vt.

- Hornbrook, J. J., capt. 12 cav., Manila, P. I.
 Horton, W. E., capt. Q. M. D., Manila, P. I.
 Howard, H. P., capt. 14 cav., Manila, P. I.
 Howard, J. H., 2 lt. 9 cav., Jefferson Bks.
 Howell, J. R., col., Bohemian Club, San Francisco.
 Howze, R. L., capt. 6 cav., World's Fair Station, St. Louis.
 Hoyle, George S., maj. ret., care Amer. Book Co., Atlanta, Ga.
 Huggins, E. L., brig. gen. ret., Muskogee, I. T.
 Hughes, J. B., capt. 4 cav., Presidio, Monterey.
 Hughes, Martin B., col. 1 cav., Ft. Clark, Tex.
 Hume, John K., 2 lt. 14 cav., Manila, P. I.
 Hunnsaker, I. L., 2 lt. 3 cav., Ft. Apache, Ariz.
 Hunt, Levi P., maj. 13 cav., Washington.
 Hunter, G. K., maj 6 cav., Ft. Meade, S. Dak.
 Hunt, Geo. G., col. ret., Carlisle, Pa.
 Huston, James, 1 lt. 10 cav., Ft. Washakie, Wyo.
 Hyde, A. P. S., 1 lt. art., Ft. Terry, N. Y.
 Hyer, B. B., capt. 13 cav., Manila, P. I.
 Ingerton, W. H., capt., Amarillo, Tex.
 Irons, J. A., maj. insp. gen., Star Bldg., St. Louis, Mo.
 Jackson, Henry, brig. gen. ret., Leavenworth.
 Jackson, R. F., 1 lt. 3 cav., Washington Bks.
 Jacobs, Douglas H., 2 lt. 14 cav., Manila, P. I.
 Jeffers, S. L., 1 lt. re. 522 Scout, Little Rock, Ark.
 Jenkins, J. M., capt. 5 cav., Ft. Huachuca, Ariz.
 Jennings, T. H., 2 lt. 7 cav., Ft. Myer, Va.
 Jersey, E. P., Jr., capt. 10 cav., Oklahoma City.
 Jewell, Chas. H., vein. 18 cav., Manila, P. I.
 Jewell, James M., 2 lt. 14 cav., Manila, P. I.
 Johnson, A., capt. 13 inf., Alcatraz Island, Cal.
 Johnson, C. P., capt. 10 cav., Ft. Robinson, Neb.
 Johnson, F. O., maj. 2 cav., Manila, P. I.
 Johnson, F. C., 1 lt. 2 cav., Manila, P. I.
 Johnson, H. B., 2 lt. 3 cav., Ft. Assinniboine.
 Johnston, G., 1 lt. sig. corps, Manila, P. I.
 Johnston, J. A., gen., 211 Mass ave., Washington, D. C.
 Johnston, W. T., capt. 15 cav., Ft. Ethan Allen.
 Jones, C. R., 273 S. Fourth st., Philadelphia.
 Jones, F. M., 1 lt. 9 cav., Ft. Riley, Kan.
 Jones, S. G., capt. 11 cav., Ft. Des Moines, Ia.
 Jordan, H. B., 1 lt. 0, D. Frankford, Pa.
 Joyce, K. A., 2 lt. 6 cav., Ft. Leavenworth.
 Jurich, A., Jr., 2 lt. 4 cav., Presidio, Monterey.
 Karnes, Wm. L., 2 lt. 6 cav., Omaha, Neb.
 Keller, Frank, 2 lt. 8 cav., Jefferson Bks., Mo.
 Kelly, Wm., capt. eng., Ft. Leavenworth.
 Kelly, W., Jr., capt. 9 cav., West Point, N. Y.
 Kelly, William H., capt., 140 Glenway st., Dorchester, Mass.
 Kendall, Henry F., maj. 12 cav., 1164 Thurman st., Portland, Oreg.
 Kendall, Henry M., maj. ret., Soldiers' Home, Washington.
 Kennedy, W. B., maj. ret., 667 Carondelet st., Los Angeles, Cal.
 Kennington, Alfred E., capt. 7 cav., Camp Thomas, Ga.
 Kerr, James T., 1 lt. col. mil. sec. dept., Washington.
 Kerr, J. B., col. 12 cav., Lexington, Ky.
 Kerth, Monroe C., capt. 23 inf., Manila, P. I.
 Ketcheson, J. C., Leavenworth, Kan.
 Keyes, Allen C., 2 lt. 14 cav., Manila, P. I.
 Keyes, E. A., 2 lt. 6 cav., 1970 3d st., San Diego, Cal.
 Kilbourne, Louis H., 2 lt. 8 cav., Ft. Sill, Okla.
 Kilian, Julius N., capt. sub. dept., 3d and Olive, St. Louis.
 Kimball, Gordon N., 1 lt. 12 cav., Ogden, Utah.
 King, Albert A., 1 lt. 8 cav., Ft. Sill, Okla.
 King, Charles, brig. gen., P. O. box 735, Milwaukee, Wis.
 Klug, Ed. L., capt. 2 cav., Colon, Panama.
 Kirkman, Hugh, 1 lt. 8 cav., Ft. Sill, Okla.
 Kirkpatrick, George W., capt. 15 cav., Ft. Ethan Allen, Vt.
 Kline, J., brig. gen. ret., The Angus, St. Paul, Minn.
 Knight, J. T., maj. qm. dept., Philadelphia.
 Knox, R. S., 1 lt. 24 inf., Ft. Missoula, Mont.
 Knox, Thomas M., 1 lt. 4 cav., Ft. Walla Walla.
 Knox, T. T., col. ret., N. Y. Life Bldg., New York City.
 Koch, Stanley, 2 lt. 5 cav., Ft. Huachuca, Ariz.
 Kochersperger, S. M., capt. 2 cav., Manila, P. I.
 Koehler, L. M., capt. 4 cav., Presidio, S. F., Cal.
 Koester, F. J., capt. 15 cav., Ft. Ethan Allen.
 Kramer, J. L., maj., Parkersburg, W. Va.
 Kromer, L. B., 1 lt. 11 cav., West Point, N. Y.
 Krumm, Herbert Z., 2 lt. 1 cav., Ft. Clark, Tex.
 Lacey, F. E., Jr., capt. 1 inf., Ft. Wayne, Mich.
 Lahm, F. P., 2 lt. 6 cav., West Point.
 Lake, B. M., capt., Alcute P. O., Denver.
 Landis, J. F. R., capt. 1 cav., Ft. Clark, Tex.
 Langdon, J. G., 1st lt. a-t, Ft. Miley, Cal.
 Langhorne, G. T., capt. 11 cav., Manila, P. I.
 Lanza, C. H., capt. art. corps, Birmingham, Ala.
 Leach, S. S., 1 lt. col. eng., 278 Penn ave., Washington.
 Lear, B. Jr., 1 lt. 15 cav., Ft. Ethan Allen, Vt.
 Leary, E. M., capt. 11 cav., Ft. Riley, Kan.
 Lebo, Thos. C., col. 14 cav., Presidio, S. F., Cal.
 Lechtmann, C., col., Kansas City, Mo.
 Lee, Fitzhugh, brig. gen. ret., Norfolk, Va.
 Lee, Fitzhugh, Jr., 1 lt. 12 cav., Manila, P. I.
 Lee, Geo. M., 1 lt. 7 cav., Ft. Riley, Kan.
 Lee, J. M., brig. gen., San Antonio, Tex.
 Lesser, R. W., 2 lt. 3 cav., care mil. sec., Washington.
 Lewis, C. R., 1 lt. 23 inf., Manila.
 Lewis, J. H., 1 lt. 5 cav., Ft. Wingate, N. M.
 Lewis, LeRoy D., 2 lt. 4 cav., Ft. Walla Walla.
 Lewis, T. J., capt. 2 cav., 514 W. Jefferson st., Louisville, Ky.
 Lincoln, James R., brig. gen., Ames, Iowa.
 Lindsey, J. R., capt. 15 cav., Ft. Ethan Allen.
 Lindsey, Elmer, capt. 1 cav., Ft. Clark, Tex.
 Lininger, Clarence, 2 lt. 1 cav., Ft. Clark, Tex.
 Lippincott, Aubrey, 1 lt. 14th cav., Manila, P. I.
 Leibrant, W. T., capt. 12 cav., Manila, P. I.
 Liverman, H. T., capt., Mansfield, La.
 Livermore, R. L., capt. 10 cav., Ft. Bayard, N. M.
 Lochridge, P. D., capt. 13 cav., Manila, P. I.
 Lockett, James, maj. 4 cav., Presidio, Monterey.
 Lockwood, J. A., capt. ret., 530 5th ave., N. Y.
 Logan, A. J., col., 119 3d ave., Pittsburgh, Pa.
 Lomax, L. C., Lt., Telluride, Col.
 Long, John D., 1 lt. 12 cav., Manila, P. I.
 Longstreet, Jas., Jr., 1 lt. 13 cav., Manila, P. I.
 Lott, Abraham G., capt. 6 cav., Ft. Meade, S. D.
 Loud, John S., 1 lt. col. ret., 3209 13 st. N. W., Washington, D. C.
 Love, Moss L., 2 lt. 2 cav., Manila, P. I.
 Love, Robt. R., 2 lt. 9 cav., Ft. Riley, Kan.
 Lovell, Geo. E., 1 lt. 7 cav., Camp Thomas, Ga.
 Lowe, A. W., maj., 1 Olive st., Lynn, Mass.
 Lowe, Wil-on, maj., Upper Alton, Ill.
 Lowe, Wm. L., 1 lt. 13 cav., Manila, P. I.
 Ludington, M. L., maj. gen. ret., Skaneateles, Onondaga Co., New York.
 Luedeka, E. C., Lt. 245 Seminary ave., Chicago.
 Luhn, Wm. V., vein. 2 cav., Manila, P. I.
 Lull, C. T. E., lt. art., Ft. Worden, Wash.
 Lusk, Wm. V., vein. 2 cav., Manila, P. I.
 Lyon, C. A., col., Sherman, Texas.
 McAndrews, Jos. R., 1 lt. 1 cav., Ft. Sam Houston, Tex.
 MacArthur, Arthur, maj. gen., San Francisco.
 MacInlin, J. E., 1 lt. col. 3 inf., Ft. Liscum, Alabama.
 MacKinlay, W. E. W., 1 lt. 1 cav., Washington, D. C.
 Macleod, Norman, lieut., North American Bldg., Philadelphia.
 McCabe, E. R. W., 2 lt. 6 cav., Ft. Keogh, Mont.
 McCaill, Wm. A., 2 lt. 8 cav., Ft. Riley, Kan.
 McCarthy, D. E., maj. Q. M. D., Ft. Leavenworth.
 McCaskey, D., 1 lt. 4 cav., Presidio, S. F., Cal.
 McCaskey, Wm. S., brig. gen., Manila, P. I.
 McClelland, E. J., maj. mil. sec. dept., St. Louis.
 McClintock, J., 1 lt. 5 cav., Ft. Wingate, N. M.
 McClure, A. N., 1 lt. 5 cav., Ft. Duquesne Utah.
 McClure, N. F., capt. 5 cav., Ft. Huachuca, Ariz.

LIST OF MEMBERS.

- McCord, J. H., lt. col., St. Joseph, Mo.
 McCormick, L. S., maj. 7 cav., Ft. Leavenworth
 McCormick, W. H., capt. 9 cav., Ft. Riley, Kan.
 McCoy, Frank R., capt. 8 cav., Manila, P. I.
 McCrossin, E. J., 614 Nat. Bank Bldg., Birmingham,
 Ala.
 MacDonald, A., vetn. 11 cav., Ft. Des Moines, Ia.
 MacDonald, G. H., capt. 1 cav., West Point.
 McDonald, J. B., capt. 3 cav., Ft. Assinniboine.
 McEnhill, Frank, 2 lt. 2 cav., Manila, P. I.
 McFadden, J. F., lt. 12 Chestnut st., Phila-
 adelphia.
 McGee, Oscar A., 1 lt. 2 cav., Manila, P. I.
 McGonnigle, J. A., lt., Leavenworth, Kan.
 McKenney, Henry J., 1 lt. 14 cav., Manila, P. I.
 McKee, Will J., gen., Indianapolis.
 McKinley, James F., 1 lt. 14 cav., Manila, P. I.
 McLeer, J. C., 475 Halsey st., Brooklyn.
 McMullen, J., 2 lt. 15 cav., Waynesville, N. C.
 McMurdo, C. D., vetn. 10 cav., Ft. Robinson.
 Macomb, A. M., 2 lt. Phil. Scouts, Manila, P. I.
 McNally, R. E., 1 lt. 3 cav., Ft. Yellowstone,
 Wyo.
 McNamee, M. M., capt. 15 cav., 1515 Larimer
 st., Denver.
 McNarney, F. T., 1 lt. 6 cav., Ft. Meade.
 Macomb, A. C., capt. 5 cav., Ft. Huachuca, Ariz.
 Macomb, M. M., msj. art. corps, Washington.
 Maize, Sidney D., 2 lt. 3 cav., Boise Bks., Idaho.
 Mangum, W. P., jr., 2 lt. 15 cav., Ft. Ethan
 Allen, Vt.
 Mann, H. E., 2 lt. 7 cav., Camp Thomas, Ga.
 Marshall, F. C., capt. 15 cav., West Point, N.Y.
 Martin, J. S., 2 lt. 15 cav., Ft. Ethan Allen, Vt.
 Martin, J. W., 1709 Walnut st., Philadelphia.
 Martin, W. F., 1 lt. 2 cav., Manila, P. I.
 Mason, Chas. W., lt. col. 21 inf., Ft. Douglass,
 Utah.
 Matthias, W. W., Walden, N. Y.
 Mans, M. P., col. 20 inf., Manila, P. I.
 Mayo, Charles R., 2 lt. 12 cav., Manila, P. I.
 Meade, W. G., 2 lt. 11 cav., Ft. Riley, Kan.
 McLean, Robert W., capt. 20 inf., Manila, P. I.
 Mears, Fred., 2 lt. 5 cav., Ft. Leavenworth.
 McGill, S. C., 2 lt. 8 cav., Jefferson Bks., Mo.
 Melitzer, C. F., 1282 Wilson ave., Chicago.
 Mercer, W. A., capt. 7 cav., Carlisle, Pa.
 Merritt, W., maj. gen. ret., 1622 R. I. Ave. N.W.,
 Washington, D. C.
 Metcalf, W. S., gen., Lawrence, Kan.
 Meyer, Oren B., capt. 14 cav., Manila, P. I.
 Michie, R. E. L., capt. 12 cav., War College,
 Washington.
 Miller, A. M., capt. 9 cav., Ft. Riley, Kan.
 Miller, Archie, 1 lt. 6 cav., Ft. Keogh, Mont.
 Miller, E. L., lt., 510 Madison ave., Albany.
 Miller, O., lt., Russell Ave., Cleveland, Ohio.
 Miller, Troup, lt., 7 cav., Camp Thomas, Ga.
 Miller, Wm. H., lt. col., Q.M. dept., Chicago, Ill.
 Mills, Albert L., brig. gen., West Point, N. Y.
 Mills, A., brig. gen. ret., Washington, D. C.
 Mills, S. C., col. insp. gen. dept., Washington.
 Milton, A. M., 2 lt. 4 cav., Presidio, Monterey.
 Miner, C. W., brig. gen. ret., 70 Lexington ave.,
 Columbus, Ohio.
 Mitchell, George E., capt. 13 cav., Manila, P. I.
 Mitchell, H. E., 2 lt. 3 cav., Boise Bks., Idaho.
 Moffet, Wm. P., 1 lt. 13 cav., Ft. Des Moines, Ia.
 Mohn, A. J., 2 lt. 4 cav., Jefferson Bks., Mo.
 Monahan, J. J., capt., West Chelmsford, Mass.
 Moore, Francis, brig. gen., San Francisco.
 Moore, J. A., lt. art. corps, 300 Bull st., Savan-
 nah, Ga.
 Morey, Lewis S., 1 lt. 12 cav., Manila, P. I.
 Morgan, G. H., maj. 9 cav., University of Min-
 nesota, Minneapolis, Minn.
 Morgan, John M., capt. 12 cav., Manila, P. I.
 Morris, W. V., 1 lt. 6 cav., West Point, N. Y.
 Morrison, C. E., col., Parkersburg, W. Va.
 Morrison, G. L., lt. 5 cav., Ft. Apache, Ariz.
 Morrow, H. M., maj. j. a., San Francisco, Cal.
 Morrow, J. J., capt. eng., Washington, D. C.
 Morton, C., col. 7 cav., Ft. Myer, Va.
 Morton, C. E., 1 lt. 16 inf., Ft. Leavenworth.
- Moseley G. V. H., 1 lt. 1 cav., San Antonio, Tex.
 Moses, G. W., capt. pay dept., Kansas City, Mo.
 Mott, T. B., capt. art. corps, Paris, France.
 Mowry, P., 1 lt. 15 cav., Ft. Ethan Allen, Vt.
 Mueller, Albert H., 2 lt. 8 cav., Ft. Riley, Kan.
 Mueller, R. W., capt., Milwaukee, Wis.
 Müller, C. H., 2 lt. 10 cav., Ft. Robinson, Neb.
 Mumma, Morton C., 1 lt. 2 cav., Manila, P. I.
 Munro, H. N., 2 lt. 1 cav., Ft. Clark, Tex.
 Munro, J. N., capt. 3 cav., Lake City, Minn.
 Murphy, P. L., capt. 1 cav., Ft. Clark, Tex.
 Murphy, Will H., capt., Corsicana, Tex.
 Murray, C. H., maj. 4 cav., San Francisco, Cal.
 Myers, Hu B., 1 lt. 5 cav., Ft. Huachuca, Ariz.
 Nance, John T., capt. 9 cav., University of Cal.,
 Berkeley, Cal.
 Naylor, C. J., 2 lt. 4 cav., Presidio, Monterey.
 Naylor, W. K., capt. 9 inf., Ft. Leavenworth.
 Nichols, Wm. A., maj. insp. gen'l dept., St.
 Louis, Mo.
 Nicholson, Wm. J., major 7 cavalry, Camp
 Thomas, Ga.
 Nissen, A. C., capt. 5 cav., Ft. Huachuca, Ariz.
 Noble, Robert H., capt. 3 inf., Manila, P. I.
 Nockolds, C., vetn. 1 cav., Ft. Sam Houston, Tex.
 Nolan, D. E., capt. 30 inf., Washington, D. C.
 Nolan, Robert M., 1 lt. 1 cav., A. & N. Hosp., Hot
 Springs, Ark.
 Norman, Wm. W., capt., 2 Punjab cav.
 Norton, Clifton R., 2 lt. 15 cav., Ft. Ethan Allen.
 Norvell, Guy S., 1 lt. 8 cav., Jefferson Bks., Mo.
 Norvell, S. T., lt. col. ret., Tallahassee, Fla.
 Notmeyer, Wm. C., lt., Pierre, S. D.
 Noyes, Charles R., maj. 9 inf., Omaha, Neb.
 Noyes, Henry E., col. ret., 2913 Van Ness ave.,
 San Francisco, Cal.
 Oaks, James, brig. gen. ret., The Portland,
 Washington.
 O'Connor, Charles M., maj. 14 cav., Manila, P. I.
 Odell A. S., 1 lt. 11 cav., Ft. Riley.
 Oden, G. J., 1 lt. 10 cav., Ft. Mackenzie, Wyo.
 Offley, Edward M., 2 lt. 12 cav., Ft. Clark, Tex.
 Oliver, L. W., 1 lt. 8 cav., Ft. Riley, Kan.
 Oliver, Prince A., 2 lt. 5 cav., Ft. Apache, Ariz.
 Oliver, Robt. Shaw, asst. sec. of war, Wash-
 ington, D. C.
 Olmstead, E., North Broad st., Elizabeth, N. J.
 Orton, Edward P., capt. 2 cav., Manila, P. I.
 O'Shea, John, capt. 4 cav., Jefferson Bks., Mo.
 Ouis, Frank I., 1 lt. 4 cav., Presidio, S. F., Cal.
 Ott, Frederick M., capt., Harrisburg, Pa.
 Overton, W. W., 2 lt. 15 cav., Ft. Ethan Allen.
 Paddock, G. H., lt. col. 5 cav., 194 s Clark st.,
 Chicago, Ill.
 Payan, W. H., capt., 80 Terrace, Buffalo, N. Y.
 Page, Charles, brig. gen. ret., 310 Dolphin st.,
 Baltimore, Md.
 Paine, Wm. H., capt. 7 cav., Ft. Leavenworth.
 Palmer, B., 1 lt. 10 cav., Ft. Robinson, Neb.
 Palmer, H. W., lt., 2711 Prospect st., Tacoma.
 Parker, C. Jr., lt., 765 Broad st., Newark, N. J.
 Parker, Dexter Wm., Meriden, Conn.
 Parker, F. Le J., capt. 12 cav., Ft. Leavenworth.
 Parker, James, lt. col. adj. gen'l's dept., Star
 bldg., St. Louis, Mo.
 Parker, J. S., capt. 10 cav., Ft. Mackenzie, Wyo.
 Parker, Samuel D., 50 -tate st., Boston, Mass.
 Parsons, L., capt. 8 cav., Fayetteville, Ark.
 Patterson, W. L., 1 lt. Porto Rico regt. Cayey.
 Pattison, H. H., capt. 3 cav., Ft. Assinniboine.
 Paxton, R. G., capt. 10 cav., Ft. Robinson, Neb.
 Pearson, D. C., lt. col. 7 cav., Camp Thomas, Ga.
 Pearson, S. B., 1 lt. 9 cav., Ft. Riley, Kan.
 Penn, Julius A., capt. 7 inf., Manila, P. I.
 Penfield, W. G., lt. ord. dept., Watertown
 Arsenal, Watertown, Mass.
 Perkins, A. S., 1 lt. 1 cav., Ft. Clark, Texas.
 Perkins, J., has. E., capt., Nogales, Arizona.
 Perrins, Wm. A., maj., box 7, Roxbury, Mass.
 Ferry, Alex. W., capt., 1 cav., Ft. Des Moines.
 Perry, Oran, gen., Indianapolis.
 Pershing, J. J., capt. 15 cav., war col., Wash-
 ington, D. C.
 Pershing, W. B., 1 lt. 4 cav., Ft. Walla Walla.

- Phillips, Ervin L., capt. 13 cav., Manila, P. I.
 Pitcher, W., 1 lt. 9 cav., Ft. Bayard, N. M.
 Pitcher, J., maj. 6 cav., Ft. Yellowstone, Wyo.
 Place, Olney, 2 lt. 6 cav., Ft. Meade, S. D.
 Plummer, E. F., maj. 3 inf., Ft. Egbert, Alaska.
 Pollion, Arthur, 1 lt. 14 cav., Manila, P. I.
 Pond, G. E., col. Q. M. dept., Washington, D. C.
 Poore, Benj. A., capt. 6 inf., Ft. Leavenworth.
 Pope, Francis H., capt. 14 cav., Manila, P. I.
 Pope, Wm. R., 2 lt. 2 cav., Manila, P. I.
 Power, E. L., capt., Lebanon, Ore.
 Powers, Robert B., capt. 7 cav., Camp Thomas.
 Pratt, H. C., 2 lt. 4 cav., San Francisco, Cal.
 Pratt, Richard H., brig. gen., Union League,
 Philadelphia.
 Prentice, J., 2 lt. art. corps, Fremont, S. C.
 Price, G. E., 2 lt. 10 cav., Ft. Robinson, Neb.
 Prichard, G. B., jr., capt. 5 cav., Ft. Huachuca.
 Purington, G. A., 1 lt. 8 cav., Ft. Sill, Okla.
 Purviance, S. A., 1 lt. 4 cav., Ft. Leavenworth.
 Quinlan, D. P., lt. 9 cav., Corvallis, Ore.
 Ramsey, Frank De W., capt. 9 inf., 22 Jackson
 Place, Washington, D. C.
 Randolph, H. M., maj., Denver, Col.
 Randolph, W. F., maj. gen. ret., 1317 N. H. ave.
 N. W., Washington.
 Rankin, R. C., maj., Las Vegas, New Mex.
 Rawle, James, lt., Bryn Mawr, Pa.
 Rawle, Wm., B. lt., col., 211-6 st., Philadelphia.
 Raymond, J. C., capt. 2 cav., Ft. Meade, S. D.
 Raynor, M. C., 1 lt. 5 cav., Ft. Apache, Ariz.
 Read, B. A., 1 lt. 6 cav., Ft. Meade, S. Dak.
 Read, G. W., capt. 9 cav., Ft. Riley, Kan.
 Read, John H., Jr., 2 lt. 14 cav., Manila, P. I.
 Read, R. D., jr., maj. 10 cav., Ft. Robinson, Neb.
 Reaney, R. J., 2 lt. 2 cav., Manila, P. I.
 Reed, Wm., O., 1 lt. 6 cav., World's Fair, St.
 Louis.
 Reeves, Jas. H., capt. 14 cav., Manila, P. I.
 Remington, F., 301 Webster ave., New Rochelle,
 New York.
 Renzienhausen, W. B., 1 lt. 4 cav., Presidio, Monterey, Cal.
 Rethorst, Ott W., 1 lt. 8 cav., Ft. Sill, Okla.
 Reynolds, Rohr, W., 2 lt. 13 cav., Manila, P. I.
 Rhea, J. C., 1 lt. 7 cav., Camp Thomas, Ga.
 Rhodes, A. L., 2 lt. art. corps, Ft. Strong, Mass.
 Rhodes, C. D., capt. 6 cav., Washington, D. C.
 Rice, S., capt. 3 cav., Ft. Assiniboine, Mont.
 Rich, A. T., 2 lt. 26 inf., Ft. Sam Houston, Tex.
 Richard, J. J., capt., 28 Walling st., Providence, R. I.
 Richmond, H. S., capt., 717 Madison ave., Albany, N. Y.
 Ridgway, T., capt. art., Ft. Snelling, Minn.
 Riggs, Kerr T., 2 1/2 cav., Manila, P. I.
 Righter, J. C., jr., 1 lt. 4 cav., Presidio, San
 Francisco, Cal.
 Ripley, Henry L., maj. 8 cav., Ft. Sill, Okla.
 Ripple, Ezra H., Scranton, Pa.
 Rivers, T. R., capt. 4 presidio, S. F., Cal.
 Rivers, Wm. C., capt. 1 cav., Manila, P. I.
 Robe, Chas. F., brig. gen. ret., San Diego, Cal.
 Roberts, T. A., capt. 7 cav., Ft. Myer, Va.
 Roberts, Wm. M., 1 lt. M. D., Ft. Sill, Okla.
 Robertson, S. W., 2 lt. 12 cav., Ft. Ethan Allen.
 Rockenbach, S. D., capt. 12 cav., Manila, P. I.
 Rockwell V. LaS., 1 lt. 11 cav., Ft. Des Moines.
 Rodgers, A., lt. col., 15 cav., Ft. Ethan Allen, Vt.
 Rodney, D. R., 2 lt. 5 cav., Ft. Apache, Ariz.
 Rodney, G. B., 1 lt. 4 cav., Ft. Apache, Ariz.
 Rodney, W. H., 2 lt. 1 cav., Ft. Clark, Tex.
 Roe, C. F., maj. gen., 280 Broadway, N. Y.
 Roome, B. R., lt. Pier 32 New E River, N. Y.
 Roscoe, David O., 2 lt. 1 cav., Ft. Clark, Tex.
 Rosenbaum, O. B., capt. 26 inf., Ft. Sam Hous-
 ton, Tex.
 Ross, J. O., 1 lt. 15 cav., gen. hosp., Wash-
 ington, D. C.
 Rothwell, T. A., 2 lt. 5 cav., Ft. Duchesne.
 Roudiez, Leon S., capt. q. m. dept., Ft. Riley,
 Kan.
 Rowan, H., maj. art., Ft. Terry, N. Y.
 Rowell, M. W., capt. 11 cav., Manila, P. I.
- Rucker, Louis H., brig. gen. ret., Los Angeles.
 Ruggles, F. A., 2 lt. 15 cav., Ft. Ethan Allen, Vt.
 Ruheen, G., lt. col. Q. M., Washington, D. C.
 Russell, E. K., maj. ret., 1005 S. 49 st., Philadel-
 phia.
 Russell, F. W., lt., Plymouth, N. H.
 Russell, Geo. M., 2 lt. 14 cav., Manila, P. I.
 Russell, G., maj. ret., Grand Hotel, N. Y.
 Rutherford, S. McF., capt. 4 cav., Ft. Walla
 Walla, Wash.
 Ryan, James A., capt. 15 cav., Ft. Ethan Allen.
 Ryan, John P., capt. 6 cav., Ft. Leavenworth.
 Ryan, T. F., 1 lt. 11 cav., Ft. Leavenworth.
 Sands, G. H., capt. 6 cav., Ft. Meade, S. Dak.
 Sargent, H. H., capt. 2 cav., College Sta., Tex.
 Sawtelle, C. G., jr., capt. 8 cav., Jefferson Bks.
 Saxton, Albert E., capt. 8 cav., Jefferson Bks.
 Sayre, Farrand, capt. 8 cav., Ft. Leavenworth.
 Sayre, R. H., lt. 9 E 40 st., New York.
 Schenck, A. D., lt. col. art. corps, Ft. Stevens,
 Oregon.
 Scherer, L. C., capt. 4 cav., War Col., Washing-
 ton, D. C.
 Schermerhorn, F. E., capt., 1420 Chestnut st.,
 Philadelphia.
 Schofield, R. McA., capt. Q. M. D., St. Paul.
 Schroeter, A. H., 1 lt. 1 cav., Ft. Sam Houston,
 Texas.
 Schultz, Theo., 1 lt. 14 cav., Manila, P. I.
 Schuyler, Walter S., lt. col. 2 cav., care Mil. Sec.,
 Washington.
 Schwan, Theo., brig. gen. ret., 1310 20th st. N.
 W., Washington.
 Schwarzkopf, Olof, vetn. 3 cav., Ft. Assinu-
 boine, Mont.
 Scott, Geo. L., maj. 10 cav., Oulgum, Minn.
 Scott, Hugh L., maj. 14 cav., Manila, P. I.
 Scott, W. J., 1 lt. 10 cav., Ft. Robinson, Neb.
 Scott, W. S., capt., col. Phil. Constabulary,
 Manila.
 Scott, W. S., capt. Q. M. D., Cheyenne, Wyo.
 Seane, C. A., 1 lt. 3 cav., Ft. Yellowstone, Wyo.
 Service, S. W., vetn. 10 cav., Ft. Mackenzie, Wyo.
 Sharpe, H. G., col. sub. dep., Washington, D. C.
 Sheldon, R., capt. 18 inf., Ft. Leavenworth.
 Shelley, J. E., 1 lt. 11 cav., Ft. Des Moines, Ia.
 Sheridan, M. V., brig. gen. ret., 1816 Jefferson
 Place, Washington.
 Sheridan, P. H., 2 lt. 5 cav., Ft. Huachuca.
 Shunk, Wm. A., maj. 8 cav., Delafield, Wis.
 Sibley, F. W., maj. 2 cav., Manila, P. I.
 Sickel, H. G., maj. 12 cav., Manila, P. I.
 Sidman, F. E., 2 lt. 8 cav., Ft. Sill, Okla.
 Sievert, H. A., capt. 9 cav., Ft. Leavenworth.
 Silliman, Robt. H., 1 lt. 15 inf., Monter-y, Cal.
 Sills, William G., capt. 1 cav., Ft. Sam Houston,
 Tex.
 Simms, C. W., col., Ronceverte, Greenbrier Co.
 W. Virginia.
 Simpson, W. L., capt. 6 inf., Ft. Leavenworth.
 Simpson, W. S., capt., Bovina, Texas.
 Slemeyer, Edgar A., capt. 8 cav., Ft. Riley, Kan.
 Slavens, T. H., capt. Q. M. D., Washington.
 Slocum, H. J., maj. 2 cav., Manila, P. I.
 Slocum, S. L. H., capt. 8 cav., Jefferson Bks., Mo.
 Smalley, Howard R., 2 lt. 2 cav., Manila, P. I.
 Smedberg, Wm. R., maj. ret., 1611 Larkin st.,
 San Francisco.
 Smedberg, W. R., jr., capt. 14 cav., Manila, P. I.
 Smith, A. L., lt. col. sub. dep., St. Louis, Mo.
 Smith, Cornelius C., capt. 14 cav., Manila, P. I.
 Smith, Frederick McC., lt. art. corps., Ft.
 Williams, Me.
 Smith, Gilbert C., 1 lt. 2 cav., Manila, P. I.
 Smith, Harry R., col., Clarksburg, W. Va.
 Smith, M. C., capt. 14 cav., Manila, P. I.
 Smith, Selwyn D., 1 lt. 5 cav., Ft. Apache, Ariz.
 Smith, Talbot, 2 lt. 8 cav., Ft. Riley, Kan.
 Smith, Walter D., 2 lt. 11 cav., Ft. Des Moines.
 Smith, Walter H., 2 lt. 13 cav., Manila, P. I.
 Somerville, Geo. R., 2 lt. 14 cav., Manila, P. I.
 Spaulding, O. L., capt. art. corps., Ft. Leaven-
 worth.
 Sprout, Wm. A., vetn. art., Ft. D. A. Russeli.

LIST OF MEMBERS.

- Stanclift, Ray J., vetn, 8 cav, Jefferson Bks.
 Starr, C. G., maj, Inf., Manila, P. I.
 Stedman, C. A., col, 5 cav, Ft. Huachuca, Ariz.
 Steele, Matt F., capt, 6 cav, Ft. Leavenworth.
 Steever, Edgar Z., col, 4 cav, Ft. Walla Walla.
 Sterling, E. K., 2 lt, 3 cav, Ft. Assiniboin.
 Sterrett, R., 1 lt, 9 cav, Ft. Leavenworth.
 Steubeneng, Geo., 1 lt, 13 cav, Manila, P. I.
 Stevens, Chas. J., capt, 2 cav, Manila, P. I.
 Stevenson, Wm. L., 2 lt, 11 cav, Ft. Des Moines.
 Stewart, Cecil, capt, 4 cav, Portland, Oreg.
 Stewart, C. W., 1 lt, 5 cav, Ft. Huachuca, Ariz.
 Stewart, T. J., brig. gen., Harrisburg, Pa.
 Stiles, J. C., com. nav. bat., Brunswick, Ga.
 Stockle, Geo. E., capt, 8 cav, Jefferson Bks.
 Stodder, C. E., capt, 9 cav, Ft. Leavenworth.
 Stopford, F. W., 1 lt, art, Ft. Monroe, Va.
 Stott, Clarence A., 2 lt, 12 cav, Manila, P. I.
 Straub, Oscar I., capt, art, Ft. Leavenworth.
 Strong, F. S., capt, art, 1615 K st., Washington.
 Strong, G., capt, 108 Dearborn st., Chicago.
 Straker, Goss L., 2 lt, 6th cav, Ft. Meade, S. D.
 Sturges, Dexter, 1 lt, 13 cav, Manila, P. I.
 Sturges, Edw. A., 1 lt, 5 cav, Ft. Apache, Ariz.
 Sturges, Geo. W., capt, 4128 Ellis ave., Chicago,
 Illinois.
 Summer, S. S., maj, gen., Oklahoma City, Okla.
 Supplee, E. M., capt, 14 cav, Davenport, Ia.
 Sweetzey, C. B., capt, 13 cav, Manila, P. I.
 Swift, Ebene, maj, 12 cav, Ft. Leavenworth.
 Swift, Ebene, Jr., 1 lt, 11 cav, Ft. Leavenworth.
 Swigert, Samuel M., col, ret., 2205 Green st.,
 San Francisco.
 Symington, John, 2 lt, 11 cav, Ft. Riley, Kan.
 Tate, Daniel L., capt, 3 cav, Boise Bks, Idaho.
 Tatnum, H. C., 2 lt, 7th cav, Camp Thomas, Ga.
 Taubee, Joseph F., 2 lt, 2 cav, Manila, P. I.
 Taubee, M. K., 1 lt, P. R., Cayey.
 Taylor, C. W., maj, 13 cav, Phoenix Bldg., St.
 Paul, Minn.
 Taylor, T. B., 1 lt, 11 cav, Ft. Des Moines.
 Taylor, W. R., 1 lt, 3 cav, Ft. Assiniboin.
 Tempany, J., vetn, 9 cav, Ft. Riley, Kan.
 Terrell, H. S., 1 lt, 10 cav, Ft. Mackenzie, Wyo.
 Thayer, Arthur, capt, 3 cav, West Point.
 Thomas, C. O., jr., 1 lt, 1 cav, Manila, P. I.
 Thomas, Earl D., col, 11 cav, Ft. Des Moines.
 Thurston, N. B., lt, col., 126 W. 87th st., N. Y.
 Tilford, J. D., 1 lt, 1 cav, Ft. Leavenworth.
 Tompkins, C. H., brig. gen. ret., 1427 20th st.,
 Washington, D. C.
 Tompkins, D. D., 2 lt, 10 cav, Ft. Mackenzie.
 Tompkins, E. R., 1 lt, 11 cav, Ft. Des Moines.
 Tompkins, F., capt, 11 cav, Ft. Des Moines.
 Towar, Albert S., col, pay dept., Chicago.
 Towles, Churchill, maj., Houston, Tex.
 Townsend, C. C., capt, Greeley, Col.
 Townsend, P. C., Corsicana, Tex.
 Townshend, Orval P., capt, P. R., Cayey.
 Traub, Peter F., capt, 5 cav, Ft. Leavenworth.
 Treat, Chas. G., lt, col, com. cadets, West Point.
 Tremaine, Wm. C., 1 lt, 15 cav, Ft. Ethan Allen.
 Tripp, S. O., lt, col., Peoria, Ill.
 Tripp, P. E., capt, 13 cav, 110 E. Broad st.,
 Richmond, Va.
 Trout, Harry G., capt, 2 cav, Manila, P. I.
 Troxel, Orlando C., 2 lt, 12 cav, Manila, P. I.
 Tucker, W. F., lt, col, pay dept., Manila, P. I.
 Turner, Fred G., 1 lt, 6 cav, Ft. Meade, S. Dak.
 Turnbull, W., 1 lt, M. D., Ft. Strong, Mass.
 Tuthill, A. M., capt, Morenci, Ariz.
 Tyner, Geo. F., 1 lt, 2 cav, Manila, P. I.
 Uri, J. H., vetn, 6 cav, Ft. Meade, S. D.
 Valentine, Wm. S., capt, 5 cav, Ft. Wingate.
 Valiant, R. D., 2 lt, 3 cav, Ft. Assiniboin.
 Van Deusen, G. W., capt, art., Manila.
 Van Leer, S., 1 lt, 15 cav, Ft. Ethan Allen.
 Van Natta, T. F., Jr., 2 lt, 8 cav, Fort Sill, O. T.
 Vans Agnew, R. S., vet, 5 cav, Ft. Apache, Ariz.
 Van Vorhis, D., 1 lt, 3 cav, Ft. Leavenworth.
 Varnum, C. A., maj, 9 cav, Ft. Riley, Kan.
 Vestal, S. P., capt, 7 cav, Ft. Bayard, N. M.
 Vidmer, Geo., capt, 11 cav, World's Fair Sta-
 tion, St. Louis.
 Vogle, C. D., brig. gen. ret., 2648 Orchard ave.,
 Los Angeles, Cal.
 Vierra, F. M., lt., Salinas, Cal.
 Vroom, P. D., brig. gen. ret., Manhattan Club,
 New York.
 Wade, James F., maj. gen., Governor's Island.
 Wade, John P., capt 2 cav, Governor's Island.
 Wagner, A. L., col., mil. sec. dept., 22 Jackson
 Place, Washington, D. C.
 Wagner, H., lt, col. ret., 201 W. 43 st., N. Y. City.
 Waite, H. D., 1 lt, ret., Berkeley, Cal.
 Walcutt, Chas. C., Jr., capt, (cav) qm. dept.,
 Prescott, Ariz.
 Waldo, Rhinelander, 1 lt, 17 inf., Manila, P. I.
 Walker, K. W., capt, 15 cav, Ft. Ethan Allen.
 Walker, Kirby, capt, 14 cav, Manila, P. I.
 Walker, R. W., 1 lt, 5 cav, Ft. Huachuca, Ariz.
 Wallach, R. R., 1 lt, 3 cav, Ft. Assiniboin.
 Walsh, R. D., capt, 9 cav, Ft. Leavenworth.
 Wampold, L., capt, 4850 Kimbark ave., Chi-
 cago.
 Warburton, C. E., capt, 704 Chestnut st., Phil-
 adelphian.
 Ward, E. M., capt., 43 South street, New York.
 Ward, F. K., lt, col., 1 cav., Ft. Clark, Tex.
 Warren, Rawson, 2 lt, 11 cav, Ft. Des Moines.
 Wassell, Wm. H., capt, 22 inf., Manila, P. I.
 Waterman, John C., capt, 7 cav, Grand Rapids.
 Wairous, J. A., maj. ret., 272 Lyon st., Milwau-
 kee.
 Watson, Jas. W., capt, 10 cav., 737 Iberville
 st., New Orleans.
 Watson, J. W., 1 lt, 8 cav, Jefferson Bks, Mo.
 Watts, C. H., maj, 5 cav, Ft. Huachuca, Ariz.
 Wells, A. B., brig. gen. ret., Geneva, N. Y.
 Wells, Capt., Telluride, Col.
 Wesendorff, Max, capt, ret., 1075 Williams st.,
 Elizabeth, N. J.
 Wesson, Chas. M., 1 lt, 8 cav., West Point.
 West, Chas., lt, col., Enid, Okla.
 West, E. S., 1 lt, 7 cav, Ft. Myer.
 West, F. lt., col., insp. gen., Oklahoma City.
 West, P. W., capt, 11 cav., San Francisco.
 Westmoreland, Wade H., 2 lt, 11 cav., Fort
 Riley.
 Wetmore, W. B., maj., Allenhurst, N. J.
 Weibrech, Chas., lt, col., Alliance, O.
 Weyranch, Paul H., 2 lt, 14 cav., Manila, P. I.
 Wheatley, Wm. F., 2 lt, 5 cav., Whipple Bks.
 Wheeler, Fred, maj. ret., Mass. Inst. Tech.,
 Boston, Mass.
 Wheeler, H. W., maj, 11 cav., Ft. Des Moines.
 Whigam, W. H., capt, 38 Loomis st., Chicago.
 White, Geo. P., capt, (cav) qm. dept., Presidio,
 San Francisco.
 White, H. A., capt, 11 cav, Ft. Leavenworth.
 Whitehead, H. C., capt, 10 cav., Ft. Robinson.
 Whitesides, J. G., lt., 3rd floor Keith Bldg.,
 Philadelphia, Pa.
 Whitlock, F. O., 1 lt, 14 cav., West Point.
 Whitman, W. M., capt, 13 cav, Manila, P. I.
 Whitside, S. M., brig. gen. ret., Bethesda, Md.
 Whitside, W. W., 1 lt, 15 cav, Ft. Ethan Allen.
 Wieman, Henry, 176 Grove st., Brooklyn, N. Y.
 Wilen, John W., 1 lt, 13 cav, Manila, P. I.
 Williams, A. E., capt, 3 cav, Ft. Apache, Ariz.
 Williard, Harry O., capt, 5 cav., 13th and
 Douglass sts., Omaha, Neb.
 Wills, H. S., lt, 86 Allen st., Albany.
 Wilson, J. C., maj, 144 22d st., Chicago, Ill.
 Wilson, James H., brig. gen. ret., 1905 Rodney
 st., Wilmington, Del.
 Winans, E. B., Jr., capt, 4 cav, Ft. Walla Walla.
 Windsor, Henry, Jr., Reverie Copper Co., Bos-
 ton, Mass.
 Winfree, S. W., 2 lt, 9 cav, Ft. Riley.
 Winham, F. W., capt, Salina, Cal.
 Winn, John S., capt, 2 cav, Manila, P. I.
 Winn, C. C., 1 lt, 5 cav, Ft. Huachuca.
 Wint, Theodore J., brig. gen., Omaha, Neb.
 Winter, J. G., Jr., 2 lt, 6 cav, Ft. Meade, S. Dak.
 Winter, M. A., col., 339 Pennsylvania ave.,
 Washington, D. C.
 Winterburn, G. W., 1 lt, 9 cav, Ft. Riley.

- Winters, Wm. H., 1 lt. 13 cav., Manila, P. I.
Wise, H. D., capt. 9 inf., Madison Bks, N. Y.
Wiser, J. P., adj. insp. genl. dept., S. F., Cal.
Wood, Edward E., col., West Point, N. Y.
Wood, John P., lt., 52d N 22d st., Philadelphia.
Wood, Leonard, maj. gen., Manila, P. I.
Wood, Robert E., 1 lt. 3 cav., West Point, N. Y.
Wood, Thomas J., brig. gen. ret. (maj. gen.),
121 N. Main st., Dayton, Ohio.
Woodruff, Carle A., gen. ret., Raleigh, N. C.
Woodruff, Charles A., brig. gen. ret., 2802 Van
Ness ave., San Francisco, Cal.
Woodruff, Wm. S., 1 lt., Porto Rico regt, Cayey.
Woodward, Samuel L., brig. gen. ret., 5710
Clemens ave., St. Louis, Mo.
Wotherspoon, W. W., lt. col. 14 inf., War Col.
Washington, D. C.
Woude, A. J., 1 lt. 6 cav., Ft. Keogh, Mont.
Wright, E. S., capt. 1 cav., Ft. Clark, Tex.
Wright, Wm. R., it., 71 Leonard st., New York
Yates, A. W., capt. qm. dept., Portland, Me.
Yates, Wm., capt. 14 cav., Laramie, Wyo.
Young, E. C., col., Chicago
Young, Samuel B. M., lt. gen. ret., gen. hos.,
Hot Springs, Ark.
Zane, Edmund L., 2 lt. 14 cav., Manila, P. I.
Zell, Edward M., 2 lt. 7 cav., Ft. Myer, Va.
Zinn, George A., maj. eng., Wheeling, W. Va.



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sion, and brings the nearest cartridge exactly opposite the striker.

The cylinder and barrel are mounted so as to be capable of a backward and forward travel upon a kind of platform made by the handle. On the fall of the hammer and the firing of the cartridge, the backward energy of the recoil immediately slides the barrel and cylinder to the rear, the pressure being taken up by a long limb pivoted inside the stock, which is called the recoiling lever. Through the lever passes a pin encircled by a spiral spring, and the backward travel serves to cock the hammer and also to compress the spring. The cylinder and barrel are then carried forward, under the action of the spring-actuated recoiling lever, aided by the rebound from the recoil frame at the back of the stock, again to slide back by the force of the recoil on firing the next shot.

Roughly as I have sketched this, I think the principle has been made clear. It now remains to explain the revolution of the cylinder.

An extension of the trigger-guard passes upwards through the body of the revolver and is, of course, firmly fixed, by which I mean that it is in no way under the influence of the recoiling parts. A projection is formed on this extension, and is called the cylinder rotating stud. A glance at the cylinder shows a peculiarly shaped recess formed all around it, and it will be seen that the rotating stud, projecting from the body, must project into this recess.

At the moment of firing, the cylinder being in its forward position, the stud lies at the extremity of the straight portion of the recess nearest the hand of the shooter. Immediately afterwards the cylinder flies back under the influence of recoil, and is revolved until it comes to rest with the stud in position at the front. Under the influence of the return movement a further rotary motion then takes place, bringing the stud to the back and the cartridge into position to receive the blow of the hammer. Thus the necessary rotation is automatically imparted, half by the forward, half by the return travel of the recoiling parts.

The mechanism is very simple, is very strong and very

unlikely to get out of order, which is a great desideratum in a service weapon. The bullet being heavier than that of any other automatic pistol yet produced, has a greater stopping power, which is a considerable advantage at close quarters. The length of the revolver is twelve inches and the weight two pounds eight and one-half ounces. It fires a bullet of .455 diameter, weighing 265 grains. The six cartridges carried by the Webley-Fosbery can all be discharged with good aim in six seconds. In appearance the new revolver is very similar to an ordinary service one. The grip of the hand is much surer, because most of the recoil is absorbed by the pistol itself, which utilizes it for revolving the



cylinder to a fresh cartridge with each shot, at the same time leaving the hammer at full cock. Besides firing the .455 cartridge made for the pistol, which is charged with cordite, in case of emergency either of the following cartridges can also be used: .455 with 18 grs. of black powder, .265 grs. lead bullet; .450 with 13 grs. of black powder, .255 grs. lead bullet.

There is on the left of the stock a safety latch, just opposite the thumb. It can be operated, when the hammer is either at half or full cock, by locking the recoiling parts of the revolver to the body, so that the hammer does not rest

on the half cock, but is raised and held back by the cocking stud. The revolver can be carried at full cock, ready for action, and be perfectly safe, all that is necessary to bring it into action being to shove down the safety latch.

There is also provided a clip holding six cartridges, which enables the firer to load this revolver as quickly as any other automatic pistol. The chief advantage lies in the fact that the chambers can be reloaded simultaneously, the clip remaining with the cartridges, and upon breaking the revolver after firing, the clip and fired cases are ejected together, and a fresh clip can at once be inserted. These clips can be re-loaded.

After loading, the hammer can be left at half cock without using the safety latch and be perfectly safe. When it is desired to shoot, all that is necessary is to cock the hammer and pull the trigger, and then the automatic action begins.

This same firm makes the same pistol in .38 caliber, taking eight cartridges. The price is about twenty-five dollars in England for either pistol.

Reprints and Translations.

CAVALRY UPON THE REAR OF THE JAPANESE
ARMY IN APRIL AND MAY, 1904.

TRANSLATED FROM "REVUE DU CERCLE MILITAIRE."
BY MAJOR EBEN SWIFT, TWELFTH CAVALRY.

AFTER the retreat of the Russian forces following the battle of Turentchen on the 1st of May, it will be remembered that considerable astonishment was expressed at a report that the Russian cavalry were still in Korea, and that they had taken possession of several places occupied by Korean and Japanese troops. The question was asked, whence came these troops and who were they? It is certain that the presence of this Russian force in Korea at the time when the main body was in full retreat at the north of the Yalu, was puzzling. The following account from the pen of the Russian Captain Eletse, who is attached to the staff of General Kuropatkin, explains this movement in detail:

The present war has already proved how hard it is to fight the Japanese. If it is true, it is because the latter unite to the knowledge of modern science all the fanaticism and stubbornness of the Russians, therefore it is necessary in order to bring good results to oppose them by these same qualities.

One of the best means of striking our adversaries, who possess such astonishing energy and tenacity, is the raid upon their rear and communications. One of the most brilliant raids, both in its execution and results is that of Lieutenant-Colonel Madritov into Korea, which I will now describe:

The principal object of the raid was to reconnoiter the northeast portion of Korea. To do this it was necessary to reach the rear of General Kuroki's army, concentrated upon the Yalu; to move rapidly into Korea towards the south; to examine the lines of defense of the enemy, and do as much harm as possible by attacking his flanks and destroying his supplies.

Colonel Madritov's detachment consisted of the following mounted troops: The Sixth Sotnia of the Oussouri regiment of Siberian Cossacks; one troop of Caucasian Cossack volunteers; several detachments of scouts from the First Rifle Regiment of Siberia, and the Fifteenth Rifle Regiment, to which were added fifty natives who were exclusively charged with the transmission of information to headquarters. The total was five hundred horsemen.

The train was reduced to the lowest limit and consisted entirely of pack animals. Colonel Madritov, of the General Staff, an officer who had gained great experience in the Boxer War, was chosen to command the detachment. Possessed of great courage, energy and coolness under embarrassing circumstances, this officer was a model chief for a partisan force. The Oussouri troop was commanded by Lieutenant Sosiedov with Cornet Serebriakov as his adjutant. The Caucasian troop was led by Lieutenant Girs, who likewise had taken part in the last war, and had a good knowledge of the country. His assistants were Lieutenant Linevitch, a brilliant young artillery officer and a son of the General of that name, and Lieutenant Savitch. The detachment of scouts of the First Rifle Regiment was under the command of Captain Bodisko, who had also been distinguished during the last war. Under him were Lieutenants Krouze, Eilers and Pioulovskii. The scouts of the Fifteenth Rifle Regiment were under Captain Bobrov, who was also an accomplished officer. His subordinates were Lieutenants Krasnenskii and Leparskii. The detachment including its chief, therefore, contained thirteen officers, a surgeon and some members of the Hospital Corps.

At the end of March the detachment left Mukden for Khouanjensian, where it stopped three days. Having learned

that there were no Japanese upon the proposed route, the detachment moved across the Yalu and entered Korea at Vianzygooumyn. From that point Captain Bobrov went with his own command and the Ourssouri Cossacks to reconnoiter in the direction of Piok-tan. Finding that the enemy had already left Piok-tan, Bobrov destroyed a lot of provisions and returned to the detachment.

On the same day the Caucasian troop reconnoitered towards Ouion. The detachment was well received at the town of Tchkhosan. The garrison of this town consisted of a hundred Korean soldiers under their colonel. Colonel Madritov invited the colonel and the chief official of the town to a banquet. The latter, after eating and drinking quite freely, went home and fled into the country. On that same night the bivouac of the detachment was attacked by Korean troops, who were driven off by the volleys fired by the guard.

Not satisfied with their perfidy on this occasion, the Koreans set fire to the town itself at several points. After having disarmed the garrison, Madritov continued in the direction of Kouaan and Kange. The prisoners and incendiaries captured by the Cossacks declared that the hostile attitude of the officials was caused by Japanese influence; that Japanese officers were acting as instructors for the garrisons in the country, and that five thousand Korean volunteers were ready to resist the Russian invasion. It was also found that the headquarters of the Korean force was at Kange.

The Caucasian Cossacks who had been sent to Ouion were also attacked by Koreans from ambush. These last were dispersed with heavy loss. The Cossacks had one killed and five wounded.

Madritov was surprised at the attitude of a population to which he had offered no injury, and he hesitated as to his line of conduct. On the one hand, to fulfill his duty, it would be necessary to advance as rapidly as possible toward the south; on the other hand, he wished to punish the Koreans as they deserved. He finally decided to carry out his principal mission and to leave the question of punishment to a later occasion. As Piok-tan was within the zone occu-

pied by the Japanese, he marched directly towards the east by Tchkhosan, Kogosan, and Boudji.

In the meanwhile, the appearance of the Russian patrols in rear of the Japanese had been discovered. Madritov, therefore, left the road and took to the mountains, following narrow paths, upon which it was necessary to proceed in single file. It was also necessary to make numerous false trails in order to deceive the enemy. After a long and painful march, the detachment reached the road at Boudji, where the River Tchintchingan was crossed, and the detachment proceeded southward in the direction of Khitch-Khen. On the march the above mentioned river, which was supposed to be a second line of defense of the Japanese in rear of the Yalu, was explored by one patrol. The patrol reported that so far the river was not defended and that there were no garrisons upon its banks.

The city of Khitch-Khen was not occupied by the enemy, but contained large stores of provisions which had been collected by order of the Japanese chief commanding the district. The detachment took possession of these provisions, divided a portion among the native inhabitants and destroyed the remainder.

Further reconnaissance established that the rear of the Japanese line was open and undefended, and that all their troops were marching toward the Yalu. Evidently a Russian division thrown into Korea would have been sufficient to cause much injury and embarrassment to the Japanese.

The inhabitants of the country informed Madritov that a considerable battle had taken place at the mouth of the Yalu and that the Japanese had lost more than 2,000 killed. In support of this assertion, the natives declared that many inhabitants had been hired to carry the boxes containing the heads of the dead soldiers which had been sent to Japan. The bodies had been burned. It was added also that the Japanese wounded numbered at least 6,000.

Profiting by the fact that the enemy's rear was uncovered, Madritov resolved to advance upon his main line of communication, which passed through Viju-Anju-Pingyang. These cities and others were fortified, but occupied by rather

weak garrisons, varying in strength from 200 to 600 soldiers. Some places had a small amount of artillery.

The patrols likewise established that the Japanese had ceased landing their troops in Korea and had probably sent them to the north. It was evident that the army of Kuroki was intended to cover Korea from a Russian invasion, and to mask the movements of other armies operating against Port Arthur.

The population continued to show its hostility to our patrols, giving only unreliable information as to the Japanese and rendering it difficult to obtain food. The inhabitants, in fact, buried their provisions, drove their animals into the mountains, and hid them in distant ravines and forests. It was impossible even to procure flour, and as to oil and milk it could not be thought of, so that corn cakes were among the rarest of luxuries.

As there were no Japanese at Khitch-Khen, Madritov decided to reconnoiter the town of Anju, which is a point on the line of communication of the enemy. In place of following the road leading straight from Khitch-Khen to Anju, which would have exposed his detachment to discovery and to being cut off from its line of retreat, Madritov advanced through the mountains toward the southeast, passing through Toktchen and Kaitchkhen.

The patrols could not get exact information as to the strength of the garrison of Anju. On May 9th, at an early hour in the afternoon, the detachment reached Kaitchkhen, and after a rest of four hours went forward during the night toward Anju. On the road it was learned that rather strong reinforcements had arrived at the city on the day before.

This information forced Madritov to give up his first intention, which was to attack the city and to inform himself first if its garrison had really been increased.

The advance-guard during this night attack was composed of the Caucasian Cossacks, who destroyed the telegraph wires along the road. Madritov had to act with the greatest caution, because he had been ordered not to engage in a serious combat, so as not to embarrass himself with

wounded. This is why, on arriving several miles from Anju, he detached Bobrov to examine the town.

Bobrov had to cross at a run an open space in sight of Anju, to occupy a height 800 yards from its walls and to draw upon himself the fire of the enemy, who did not fail to show himself upon the unexpected appearance of the Russian troops. He fully executed the first portion of his task. He crossed the open space rapidly and without loss under the lively but ineffective fire of the Japanese, dismounted his troops, occupied the hill and opened fire.

Bobrov hastily concluded from the fire of the enemy that the latter did not consist of over 200 men, whom he could easily dispose of. He consequently brought up his reserve, addressed them a few words and gave the order to charge. The Japanese received the charge with a fire which was inefficient at the beginning, but when the Russians had closed to 200 yards, they were received by volleys. Bobrov was mortally wounded at one of the first volleys by two bullets. Immediately afterwards the other officers were also wounded, one by three wounds and the other by two. The detachment had thirty men killed and wounded. The Russians were obliged to stop. They fell back a little in rear of the crest, lay down and opened fire upon the enemy. As soon as the scouts attacked upon one side of the town, the Caucasian Cossacks were sent to the other side. The latter dismounted, lay down 150 yards from the wall and opened fire, preparatory to assaulting in concert with the scouts. The failure of the attack of the scouts and the strength of the garrison, which seemed to be at least 500 men, caused Madritov to decide that he could not hope to capture the city.

He accordingly ordered Lieutenant Piounovskii to take command of the scouts, to remove the dead and wounded, and to retire. The Lieutenant sent eight men to carry off the dead and wounded, but as they approached they were almost all killed by the Japanese fire. Madritov then ordered Lieutenant Linevitch to take with him a platoon of scouts and a half-troop of Cossacks and to take position on the left of the half troop commanded by Girs. Lieutenant

Linevitch was ordered to keep up a strong fire against the side of the fortress near which our wounded were lying, so as to attract the attention of the garrison towards himself. The Japanese at once began to reply to Linevitch, and the scouts profited by it to advance toward the wounded; but they also were nearly all struck.

Perceiving that all efforts to carry off the wounded merely resulted in new losses, Madritov ordered his men to a commanding position until night, in order that he might carry off the wounded under cover of darkness.

Such was the situation at 9 o'clock in the morning. The detachment had, therefore, to maintain itself in position for at least twelve hours.

At about half past nine, a Japanese company, preceded by cavalry patrols appeared on the other side of the river from the direction of Long-ben. Half of the Oussouri Cossacks immediately galloped towards the bridge and set fire to it, but the Japanese, nevertheless, rushed upon the burning bridge. The scouts of the Fifteenth Regiment and the Oussouri Cossacks drove back the Japanese company by volley fire, and it did not show itself again during the day.

The Russians continued to exchange shots with the garrison until 3 o'clock in the afternoon. At this moment, the Russian detachment was joined by Lieutenant Eilers, who had been sent with a patrol on the Ping Yang road and had destroyed the telegraph line for twelve miles. The Lieutenant reported that a column of about 600 infantry of the enemy was coming from Ping Yang. The two companies quickly appeared, one of which moved upon Anju, while the other directed itself upon the left flank of the Russian detachment. Lieutenant Linevitch, who was on the left flank, had only seventeen men on his skirmish line, so that the situation was critical. Having changed his front, Linevitch opened fire upon the company which was advancing by rushes, and shortly afterwards Captain Bodisko took post 200 yards behind him with the scouts of the First Rifle Regiment. Linevitch could then carry off the dead and wounded, and began to retire.

Bodisko allowed the Japanese to approach very close be-

fore opening fire. When they had reached the distance of seventy paces, our volleys disordered their front rank, and the rear rank, after having carried off the dead and wounded, retreated with great losses toward the fortress. Our troops awaited a new attack, but the Japanese, probably thinking that our detachment was much stronger than it was, and that it would assume the offensive on its own account, remained behind the city walls. The firing broke out anew and lasted until nightfall, when an account was made of the losses of the detachment and found to be as follows: Three officers wounded, including Bobrov, who died during the night; nineteen killed, and forty-three wounded.

The dead were buried in two ditches. Bobrov was placed with his men, and crosses were planted above the graves. The wounded were carried in improvised litters, and the detachment fell back at 2 o'clock in the morning.

At the end of about ten miles the command was halted for rest. Our soldiers, exhausted by long fighting as well as by the night march, had just gone into bivouac, when the outposts returned at a gallop and reported that the Japanese were at hand. The wounded were immediately sent off under an escort, and the detachment took up a position in a defile. After deducting the litter-bearers, the escort for the wounded and the horse-holders, there remained only 150 men for the fighting line.

The Japanese with a strength of two companies appeared at about noon and took up a position a short distance away. Friends and enemies for two hours faced each other without firing, when the Japanese retired. The Nippons probably thought that our detachment was the advance of a strong column, not suspecting that so small a force would have the boldness to place itself in rear of a great army.

After having destroyed his train, which delayed his march, Madritov fell back towards Toktchen, passing by way of Kaitchken. The wounded were carried by natives. A detachment was dispatched under the order of Lieutenant Girs to examine the eastern coast between Gensan and Kham-khyng.

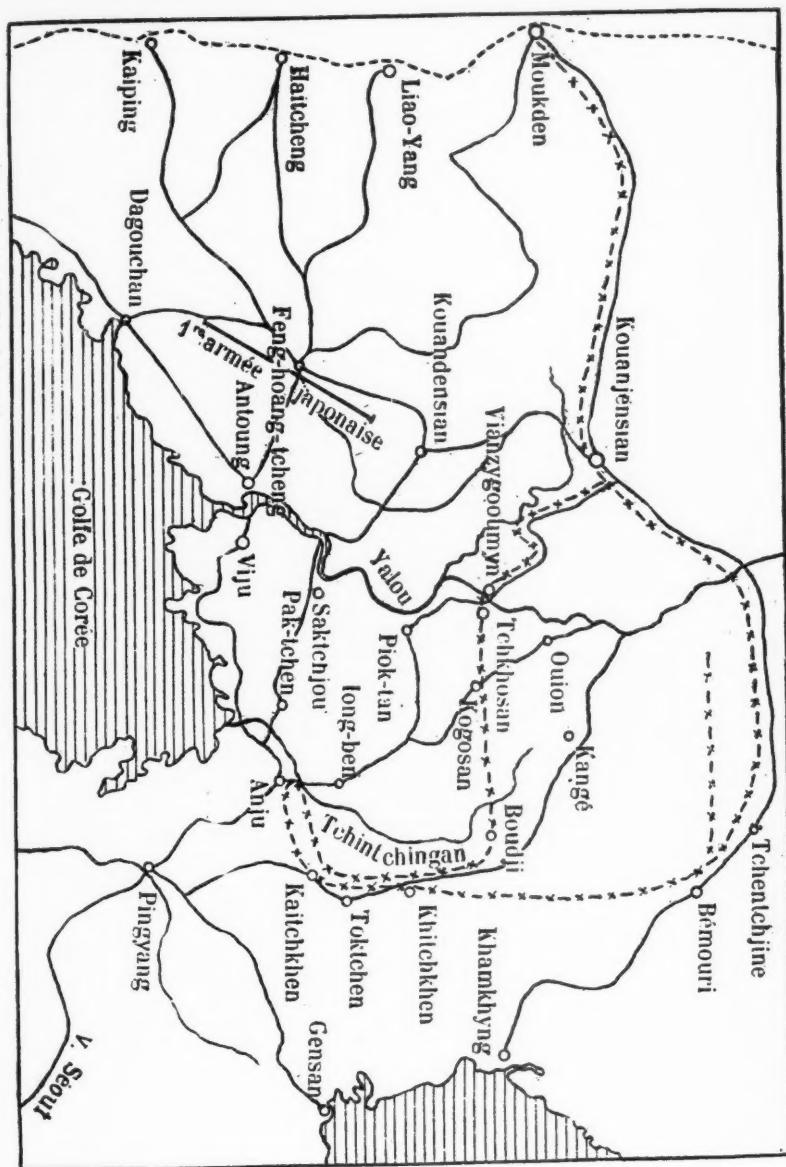
When about forty miles from Gensan, Girs learned that

the city was garrisoned by 2,000 Japanese and that the third line of defense was not entrenched between Gensan and Ping Yang. He then marched upon Khamkhyng, the richest city in southern Korea, situated in a valley surrounded by fertile plantations. The garrison of the town consisted of about 600 Korean soldiers, who received our troops with volley firing. As a punishment, Girs burned the town to the ground.

By the light of the fire the march was continued upon Tchentchjine and the main command was rejoined at the village of Bémouri, just as the latter was fighting a lively engagement with the Koreans, who held the defile in rear of the Russians. Having dispersed these Koreans on the 23d of May, the column passed through Tchentchjine, which had been abandoned by the inhabitants and troops, who had all retired to the strong fortress of Koni.

On the 27th of May Lieutenant Linevitch was sent forward with a half-troop toward the village Tchoumak-Kori with orders to hold the place at all hazards until the arrival of the column. Madritov had taken this decision because the village is upon one of the roads which crosses the Yalu and might have been held by forces of the enemy. Linevitch was received with rifle shots, but rushed on to the attack, drove the Koreans from the village and maintained himself there with the loss of one killed and three wounded. Madritov marching rapidly drove the Koreans from a new position that they occupied upon the heights and chased them towards Kange.

Since Madritov had collected all necessary information, there was no longer any reason to attack this fortress, so he retreated upon the Yalu, having burned forty-eight Korean villages, of which all the male inhabitants were fighting of their own free will against the Russians. On the 1st of June the detachment recrossed the Yalu closely followed by the Korean garrison of Kange, who kept up a continual fire. After crossing the Yalu the detachment marched on Kouanjensian, where he reported the presence of infantry, cavalry and artillery of the enemy. Madritov then fell back upon the left wing of our army, taking with him all his wounded.



— X — X — X Illustration du détachement russe

Echelle approximative au 1:28.000.

From this it will be seen that Madritov's raid upon the rear of the Japanese army under difficult conditions had considerable results. It lasted two months. It is an example of what can be done with a small detachment commanded by a bold and energetic chief.

THE LESSONS OF THE BOER WAR AND THE BATTLE-WORKING OF THE THREE ARMS.

A LECTURE DELIVERED BEFORE THE BERLIN MILITARY SOCIETY, ON 30TH MARCH,
1904, BY MAJOR BALCK, OF THE GREAT GENERAL STAFF.

Translated by Permission.

[From The *Journal of the Royal United Service Institution*, Nov., 1904.]

1. General Conditions and Lessons for Infantry Combat.

If we do not enter into the question of guerilla war, only the battles up to the capture of Pretoria on the 5th June, 1900, come really under purview for tactical consideration.*

The distinguishing mark of the Boer method of fighting is one of passive defense pure and simple, which may well

*The Boers laid particular stress on this question of guerilla war, when they protested against Lord Robert's manifesto of the 13th September, 1900, directed against their determination to carry on what was practically a war of this nature. "The truth is," writes State Procurator J. C. Smits, in the *Nieuwe Rotterdamsche Courant*, 23d June, 1901, "that we have begun a new method of carrying on the war, which the enemy is stigmatizing by the old perverted name of guerilla. Having carried on the first half of the war in the old methods, we are now convinced that the English superiority in force is too great for us, and we have therefore struck out a new course, in which strategy, mobility, and the distribution of small fighting bodies over a wide extent of country are of much greater importance than a battle proper."

avoid a defeat, and stave off any decisive results from day to day, but can never achieve victory. Only the leader who has attacked and destroyed the enemy can call himself victor. The Boers failed to understand that a *counter attack* must also follow a *fire-defense*. In December, 1899, the English attacks on Magersfontein and Colenso were repulsed; but the Boers allowed the English abundance of time to bring up reinforcements, enabling them, five weeks later, to repeat their attack on the Upper Tugela, and, after nine weeks, at Paardeberg. As the Boers only wish to keep the enemy at a distance, and drive him back by their rifle fire, they dispense with Reserves. It is astonishing with what small forces such a defense is possible. As, with but few exceptions* the front and flank attacks of the English were not carried out simultaneously, the Boers were able, thanks to their mobility, to withdraw men from the less threatened positions and use them at other points. Everyone, however, did not fight in the firing line. Against the wish of the leaders, faint-hearted men remained behind under safe cover to await the result or to recover from the effects of the fatigues of fighting. Dr. Schiel† thus describes what he saw while a fierce fight was raging not far off upon Spion Kop on the 24th January, 1900, and every rifle was required:

"I arrived, after about an hour's march, at the foot of Spion Kop. * * * There I came upon a tolerably large number of Boers, who were making coffee under the protection of some overhanging rocks; others joined them there, coming from the hill; others again, went off to take part anew in the fighting, after having rested and refreshed themselves. * * * Everything was done in order and quietly; there was no attempt to drive men into action; but whoever wanted to join the firing line did so, and whoever wished to keep away altogether could do so with the greatest ease."

* "Kriegsgeschichtliche Einzelschriften," No. 32, p. 34; at Elandslaagte 21st October, 1899; Driefontein, 10th March, 1900; also No. 33, p. 36.

† "Mit den Deutschen im Burenkriege."

In an unpublished account a former German officer, another companion in arms of his, made the same statement. Such casual fighters are, however, no tactical Reserves. A true offensive was foreign to the Boers; their method of attack was to creep forward from cover to cover in order better to be able to shoot down their opponents. Boldly to charge the enemy they at first ridiculed as mere stupidity on the part of the foreigners.

The defense positions consisted of long connected groups of deep rifle pits,* which, as inconspicuous as possible, were mostly placed where the enemy's eye would least expect them, special care being taken that nothing showed against the sky-line. In order to prevent the clouds of sand caused by the explosion of the guns, the ground in front of the guns was covered with the hides of freshly slaughtered animals. The grass was often burnt in front, in order that the khaki-clad English should show up in sharp contrast to the black ground beneath them.

The Boer is an adept at deceiving his enemy. Thus sham positions were made in which dummies, to serve as targets, were set up; guns using black powder were fired that attention might be drawn from the real positions (Magersfontein), and bursting charges exploded to deceive the enemy's gunners in observing the effect of their shots.

It is ingrained in the Boer nature to take advantage to the fullest extent of the carrying power of his rifle, even to over 2,000 yards, so that it was only in isolated cases that the leader could succeed in making the men reserve their fire until close range. But when this occurred the effect was very marked. There can be no question of a controlled long-range fire. Every man firing adjusts his own sights independently, and alters them according to his own observation. As the Boer shot with a fine sight, he accepted the metre-graduation of the Mauser rifle without anything further than the paces by which he estimated his distance, and opened

*Boulders proved good cover only for thin firing lines; with the men in closer formation the opinion was strongly held that the splinters from the rocks increased the effect of the bullets and endangered the people near.

fire with shots at short ranges, which were easy to mark, and allowed the enemy to advance within the zone of fire. Worthy of notice was how, in a fire-action, with an enemy lying down, they watched for the opportunity if a man raised himself. Immediately bullets began to fall, and even if these did not hit, they raised a feeling of insecurity, often nipping in the bud any attempt to advance. One thing, however, was wanting in the Boers, that was the desire resolutely to await the assault, in order to engage in hand-to-hand fighting.

The English infantry was compelled in almost all actions to advance against the enemy over a plain completely destitute of cover, and whose position was difficult to locate. An army cannot disappear as the Boer detachments were able to do. The English scouting might certainly have afforded better results; no attempt was made to tear away the veil which the Boers had spread in a great measure over the whole country. Finally, the English cavalry failed to continue scouting on foot when they could go no farther on horseback. In whatever direction the slow-moving infantry was led, the more mobile Boers were always able to oppose a new front to the enemy. The case was, however, otherwise when their increasing strength enabled the English, with their columns extending over a wide front, simultaneously to seize several positions within the veil, and to force the Boers to occupy a definite stretch of country, thus rendering them immobile. It would be wrong to endorse these tactics, which were called into being under quite exceptional circumstances, without a wider survey of the theater of war. The course of the attacks in the first battle were as follows:

One or two days before the actual attack the artillery opened on the position with shrapnel and lyddite shells from flat-trajectory guns. This fire had but little effect, as the opportunity was neglected of simultaneously bringing forward a stronger force of infantry, in order to hold the Boers to their position. The hope, too, of inducing the Boers to return the fire, in order to gain footholds for the capture of their positions, was not realized.

The attack was hurriedly carried out—after the fashion of maneuvers. In thin skirmishing lines, the reserve detachments likewise in loose order, with, as a rule, but a slight loss, a distance of about 800 yards from the enemy was reached. The volley firing laid down by the Regulations could not further be carried out, as with the thin skirmishing lines, the officer could only exercise control over the men near him.

The uselessness of this method of firing and the increasing effectiveness of the enemy's fire paralyzed all energy, and quickly engendered that fatalistic inactivity and lack of mobility, which set a limit to the attack earlier than was justified by the extent of the losses. "The void of the battle-field" has become the significant expression for a new phenomenon, opposed to which the English fighting training proved ineffectual. The invisibility works directly upon the *morale* of the man, upon the true sources of his energy and his mettle. The soldier who cannot see his enemy, ends by seeing him everywhere. From this impression to a feeling of insecurity and then to one of fear is only a step. This feeling of unsubstantiality an Enlish officer characterizes as the most painful in the conditions of the modern offensive attack. "It originated in smokeless powder, which was used in South Africa for the first time, and through the artfulness of the Boers in making themselves invisible to their enemies. When attacking, a man has the feeling of advancing against an invisible fate, against which he possesses no weapon. Should a man wish to open fire at longer range, he shoots more or less at haphazard. The defender, however, fires as soon as a man rises and advances, without his enemy being able to see him.

The troops of the second line approached with the expectation, in the spirit of the Regulations, of carrying all before them by a bayonet charge, under the firm conviction that the Boers would not stand against an attack with the *arme blanche*. The trust in the *arme blanche* was thoroughly justified, but it must only be based on a successful issue of fire action. Before, however, the fire superiority was established, the advance by rushes began. The detachments,

meeting a heavy fire, threw themselves down and returned it, often without knowing where to aim, except in the general direction, where the enemy was supposed to be. As a rule the attack now came to a standstill. When, however, it came to storming isolated positions, only a portion of the fighting line advanced, against which the defenders could direct their fire all the more effectively, as the guns had ceased firing.

Compared with former battles, the small proportion of losses to the large number of prisoners is astonishing. Although it is true that in South Africa isolated detachments often in a short time suffered heavy losses, yet, considered as a whole, the losses were but small. They amounted in the battles to not more than fourteen per cent., although, naturally isolated, especially the smaller detachments, suffered considerably more. In their colonial wars, English troops have achieved victory by great physical exertions, still with but small actual loss of life. Such battles have the disadvantage of misleading the army in its views as to the losses which a seriously pressed home attack demands to-day. The heavy losses which English troops suffered in the Peninsula, at Waterloo, and in the Crimea have been forgotten.

Public opinion in England, which is all-powerful, influenced by sensation-hunting ignorant correspondents, went even so far astray as to consider small losses the sign of good tactical dispositions; and leaders, who have inscribed their names in history in iron characters, must give way to generals who subscribe to the precept that discretion is the better part of valor. It is conceivable that the English commanders were more or less influenced by this morbid flood, which hindered them from bringing the war to an end by summary, powerful blows. How pertinent and classical for all time are Clausewitz's words: "Let us not hear of generals who conquer without bloodshed. If a bloody slaughter is a horrible sight, then that is a ground for paying more respect to war, but not for making the sword we wear blunter and blunter by degrees, until someone steps in with one that is sharp and lops off the arm from the body." That such long drawn out wars without bloody annihilating battles

tend in the end to produce the heaviest losses, is directly proved by the war in South Africa.*

The more sternly and remorselessly a war is waged, the less are the opponents able to come to an understanding with each other; the fewer are consequently wont to be the number of prisoners. At Isandlwana (1879) an English battalion (the Twenty-fourth) succumbed, with the exception of a few who escaped, to the spears of the Zulus; at Maiwand (1880), also, scarcely a man surrendered to the Afghans, as quarter could not be depended upon. Quite otherwise was it in South Africa: Boer and Briton understood the same language; the intention to kill their opponents was seldom displayed by the Boers; equipments, horses and arms were taken from their prisoners, who were then generally let go; only a portion were interned at Pretoria, and these were well treated. We may draw a comparison here with the insults to which our prisoners in France were often treated.†

Even in the very early days of the campaign came the laying down of arms by strong detachments, which apparently was not punished with the severity which it merited. We almost get the impression that surrender was looked upon by the men as a means for getting themselves out of a difficult situation.

*The following statistics of the losses up to 8th November, 1900, are given in Conan Doyle's "Great Boer War":

| | Officers. | Men. |
|---|-----------|--------|
| Fell in action..... | 283 | 2,683 |
| Wounded | 1,064 | 12,868 |
| Died from wounds..... | 85 | 179 |
| Missing and prisoners..... | 283 | 7,330 |
| Of these were exchanged or escaped..... | 240 | 6,299 |
| Died | 3 | 86 |
| Died of sickness..... | 149 | 5,472 |
| Died of accidents..... | 3 | 101 |
| Invalided | 1,219 | 27,937 |

There were 368 officers and 3,462 men who met their death through the enemy's lead, as against 152 officers and 5,573 men who succumbed to sickness or accidents. The total losses of the army including prisoners, amounted to 1,782 officers and 30,002 men, out of a force of 5,880 officers and 151,546 men.

†Lieutenants Puttmann and Brüggemann, of the Third Brandenburg Regiment, in their history of the regiment, give details of the unworthy treatment to which German prisoners were subjected in France.

In country devoid of cover, commanded for a considerable distance by the enemy's fire, to break through was of course difficult; a retreat doubtless attended with great losses. It was therefore easy for the mounted Boers to waylay isolated detachments; we must also further bear in mind that the war was carried on in the hottest time of year in a country poorly supplied with water, and that the men became exhausted sooner than would have been the case under other conditions. Thus there was an excuse, for example, for the men who, exhausted after their night march, capitulated at Stormberg; not so, however, to take another example, for the detachment under Colonel Carleton, which capitulated at Nicholson's Nek after a feeble defense. Here it may certainly be admitted that individual Englishmen, who had already surrendered, stood mixed up with the Boers, so that the leader did not really know how he ought to act under the circumstances, and this hesitation was decisive of his fate. It must be imperatively required in the future that troops surrounded in open country make a serious attempt to cut their way through before there is any thought of laying down their arms. As opposed to this conception, the English court of inquiry on the 226 cases of surrender which had taken place up to 1st June, 1900, admitted justification in all but three, where only individuals had allowed themselves to be taken prisoners.

The want of success of the English attacks was to be traced to defective arms and an inadequate training in shooting under battle conditions,* and more especially to the unsatisfactory tactical training of the superior officers, whose lack of initiative and fear of taking responsibility became a

* In a competitive shooting match, picked shots at Shanhaikwan, on 18th and 19th August, 1902, made the following scores at 200 yards against the German ring target with ten shots (the highest possible score being 120): The English detachment made 84-6; the German, 79-2; the French, 73-2; the Japanese, 70-9; the Russian, 66-9; and the Italian, 46-8.

"A requirement which the English could not fulfill," remarked a Boer, "we, on the other hand, could always comply with, viz.: judging distance and independent choice of sighting by men individually. In this respect the English, as far as we could ascertain, were not only quite unskilled, but what is worse, they had been trained on an utterly erroneous system. Perhaps

by-word, while the younger officers did very much better. The troops themselves were brave enough, but not prepared for such duties as fell upon them in South Africa.

Major Balck then quotes from Lord Roberts's evidence before the War Commission as to the want of individuality and resourcefulness on the part of the English soldier at the beginning of the war, and his defects as a marksman as compared with the Boers, and his want of knowledge of how to use ground. (Report of War Commission, p. 440.)

All reports concur in the view that the sectional and company commanders showed in almost every case energy, self-reliance and determination; that their tactical training was, however, insufficient, and that the senior officers were not anxious to take responsibility upon themselves. It may be because with increasing years these latter had become more irresolute, or that they had had no practice in handling strong detachments. But the whole system of peace training was unfavorable for producing self-reliant leaders; everything was laid down, every attempt at independent action repressed. Thus General Colvile declares: "It is much better for a young officer to make mistakes and learn what the consequences will be, than that he should be trained to avoid faults, as in that case he will then become a puppet, which can only move when his superior pulls the string." The fear of once blundering in the choice of expedients was extraordinary; it led to inaction, and was the cause of many favorable opportunities being allowed to slip away by those in command.

The leaders must be blamed for not understanding how to regulate the co-operation of all arms, in order to carry through a united attack. Above all, they hesitated, when the issue hung in the balance, to achieve victory for the

that this was so was of more importance than is supposed. Of thirty-five men whom we took prisoners, after they had fired at us up to 350 paces, not a single one had got his sight correct. Most of them had kept their sights fixed at 800 and 850 yards, because no order to change them had been given. Such a thing was not possible with the Boers. Certainly if a whole line of Boers had never all had their sights right, on the other hand, they had never all had them wrong. Every man could adjust his own sight, he could make a mistake; but he made the attempt to observe the change of distances."

English colors by putting into the fighting line the whole strength of their reserves. At Colenso (15th December, 1899), out of 15,600 men opposed to 5,000 Boers, only some 4,800 were actually engaged, who suffered a loss of fifteen per cent. On the 24th January, 1900, the day of Spion Kop, there were 20,000 available for the attack, of whom from 3 A. M. to 9:30 P. M., only 2,600 took part in the action; about 11 o'clock these were reinforced by another 1,600, and again at 5 by 1,500 more. What the strength of the Boers was it is impossible to state accurately; at all events there were only some 3,000 men at this spot. The English were, however, beaten, although there were 14,000 men who never came under fire at all. Here the leadership failed from lack of determination.

Various pleas have been urged in excuse for this; the numerical inferiority of the English forces at the beginning; the disproportion of the troops to the great extent of the theatre of war; the difficulty of bringing up reinforcements from the distant mother country; the eventual effect of heavy losses upon the recruiting for an army based on voluntary service; and even the influence which a defeat might have had upon the attitude of the European Powers. Still, all these pleas could not exonerate the leader on the battle-field. For this neglect the English Drill Regulations are primarily responsible, which lay down hard and fast the necessity for keeping back the reserves in a picked position. Clearly these Regulations, which were no longer suited to the times, were a heavy drag on the English army. The Infantry Regulations, while only attaching small importance to the fire action, laid great stress upon the shock action of a strong second line with the bayonet, and over-rated the importance of isolated attacks upon the course of the whole battle. Unfavorable conditions of training in the mother country militated against the development of a modern system of tactics. Whilst the importance of enveloping movements was certainly appreciated, frontal attacks were, often, even regarded as a sign of unsatisfactory tactical knowledge. But it was not recognized that enveloping movements required unconditionally the firm holding of the front, if they

are to be effective and the enemy not to be left free to withdraw at will as soon as his flank is sensibly threatened. But the English forces holding the front were handled in such a way that their feeble and hesitating movements left no doubt as to the real intentions of the attackers. It was only an empty threat with insufficient means. The knowledge also that infantry and artillery must work together in order to establish fire superiority was not general in the army. Artillery preparation in advance and infantry attack were two things sharply separated from each other.

Sounder views had developed before the outbreak of the war in South Africa in the various actions on the Northwest Frontier of India; but the troops who had taken part in these actions were shut up in Ladysmith after the early successes.

Only painfully and slowly could the troops trained at home under quite other conditions, and strengthened by reservists who had passed through a yet earlier training, accustom themselves to the new conditions.

All troops coming fresh into the field have to divest themselves of a mass of habits unconsciously acquired on the maneuver ground during peace, which have mostly led to an insufficient appreciation of the effect of weapons. This was evident with the Austrians in 1866, during the battles in August, 1870, and in the Russian abortive attempts to storm at Plevna. While the rapid course of the campaign in Bohemia hindered our then opponents from changing their tactics, we see in the Franco-German War a difference in the method of the earlier and later methods of attack, which was plainly noticeable by even the superficial observer. We need only compare, for example, the attack by the King's Grenadiers on Schloss Geisberg and that of the Grenadier Regiment No. 11 on the Gorge-Rezonville road with the attacks by the Baden Life Grenadier Regiments on the railway cutting at Nuit and the attack of the Guard on Le Bourget in order to appreciate the extent of the advance made on our tactics at that time.

In every war the impression of the effect of the enemy's fire upon soldiers only trained under peace conditions will

be so overwhelming—an impression which no peace training can convey—that all, like the Austrians in the first battles in 1866, ourselves in the Franco-German War, the Russians in the Balkan Peninsula, will be astonished at what seems to them an unprecedently hot fire. It was the same in South Africa. But the history of war shows that, even up to the present day, good troops fully and completely get over this impression. The leaders of all grades must only be prepared in advance to find the remedy immediately on the spot. This, however, can never lie in the defensive, but only in the attack. Major Kunz is right when he recommends that the lessons learned by any body of troops at the beginning of the war should be made known as quickly as possible for the common good of the whole army. Only in this way can mistakes be avoided, such as occurred on the 18th August, 1870, when a battalion (III. 86) attempted to make their way through the effective fire zone of the enemy in double column. Taking a comprehensive view, our Regulations of 1889 for that reason lay down: "The normal formation must be given up without hesitation, where the vicissitudes of the fighting require it." In this sentence the capability of adapting our instructions to modern conditions reaches a climax. Attempts were even made in England to justify* the new conditions, whilst still under the influence of the first failures at the Irish maneuvers of 1898, acting upon the principles enunciated by Lord Roberts as to the unassailability of the front.

Two fundamentally different tactical methods arose in the level plains of the Free State and in the mountainous country of Natal. In one case to embrace in the struggle, an extension of front, ever increasing, from fight to fight, by complete abandonment of any deep formation, before the enemy had even opened fire; in the other, a smaller breadth of front, with the deepest formation, without giving this up

*See also Lord Roberts' Order of the Day, 26th January, 1900: "Against such an enemy, every attempt to capture a position by a frontal attack will certainly fail. The only chance of success lies in the possibility of turning one or both flanks, or, which will mostly be equally effective, of threatening the enemy's line of retreat."

in the course of the battle. In the west the attacks failed because the supports, which should continually press forward to strengthen the firing line were wanting; in the east, because the weak force at the beginning was never strengthened, nor was the fire strength of the enemy ever opposed on equal terms. The caution in the Infantry Drill Regulations against the use of insufficient forces out of misplaced economy in the carrying out of a battle plan, is not given without cause after our campaign experiences. "One would constantly fight with inferior against superior numbers, and voluntarily forego the advantage that such superiority would give. An unsuccessful undertaking, however, not only causes useless losses, but damages the *morale* of the troops." The English leadership in battle was wrecked because the extension of front and a deep formation could not be reconciled with each other.

Lord Roberts's operations at Paardeberg and Bloemfontein determined the whole later course of the English tactics pursued. He had to overthrow the enemy while himself avoiding any failure; new defeats would have damaged the prestige of England, and might even have brought about the interference of some of the European Powers. How much this was feared in England was proved by the extensive measures taken by the navy for the protection of the transports. Thus from the outset of his taking over the command his actions showed the impress of the cautious leader. There was certain to be a difficulty in maintaining a steady flow of reinforcements to make up for losses. So he determined to avoid frontal attacks and to maneuver the enemy out of his positions, not, however, with the view of compelling him to fight in the open country, but only to obtain possession of the country held by the Boers. That was the distinguishing mark of the operations: the winning of positions, not the destruction of the enemy!

By a rapid flank march Lord Roberts threatened the communication of the Boers at Magersfontein; by a night march they attempted to escape; but, brought up in a very clever manner by the cavalry on the 17th February, 1900, they on the next day repulsed an attack made upon them

during the absence of Lord Roberts. Lord Roberts stopped the further carrying out of the attack, and after being surrounded and bombarded for ten days the Boers were compelled to lay down their arms. The same thing happened in the fighting at Poplar Grove on the 6th March. The enemy was held but no attack was made, in the certain expectation that he would evacuate his position during the night. It is true he did so, but only to make another stand a few miles further away.

The advance was arranged from the outset with the avowed intention of surrounding the enemy. The troops advanced with the dispositions for battle fully developed. In the advance on Diamond Hill, 11th June, 1900, Lord Roberts's force, 40,000 strong, moved forward with a broad front of about thirty miles, with an interval of between twenty and thirty paces between the skirmishers. Only against a broken enemy, who it is known will not advance to the attack, is it possible to take liberties of that kind. The idea of destroying the enemy remained quite in the background.

But what may thus have been saved in bloodshed on the day of battle was more than made up for by the sacrifice entailed through the prolongation of the war. Timidity in the face of the enemy was most apparent in Buller's actions on the Tugela. Battles which opened favorably were stopped short, partial successes not taken advantage of, only because the further attack would have become a frontal one. Nothing could be more fatal than to allow troops to believe that a frontal attack is impracticable. On the contrary, troops must learn that in great battles almost all attacks will be frontal. It must naturally be assumed that as in any other attack, fire superiority has first been established. If other methods do not suffice, there remains only what is recommended by our Drill Regulations, viz., to approach the enemy under cover of the darkness, and then at day-break reopen fire at closer ranges. This was also several times attempted in South Africa. The English army had had in peace a good training in carrying out night attacks. Bearing in mind the storming of the Egyptian lines at Tel-

el-kebir (1882) in the dusk of the morning, and the successful march to storm the Khalifa's position on the Atbara (8th April, 1898), much might well be expected from night actions. The experiences gained in 1882 were, however, forgotten, and less weight was attached to the preparations and to the acquiring all necessary information indispensable for success. Thus it came about that at Stormberg and Magersfontein the troops came on the enemy too late, and instead of taking him by surprise, were themselves surprised in close order by their opponents' fire, which wrought great havoc in their ranks. So reliance on this method of fighting died away, and the dusk was not taken advantage of, viz.: after an indecisive action, when, as we now can see, a night attack would have certainly insured victory.

It was only a small step from reluctance to making a frontal attack to the belief that it may generally be impracticable. Major Baden-Powell lays down the close connection of the *operative offensive* with the *tactical defensive* as a fundamental principle.* But only under particularly favorable circumstances does he consider that a frontal attack can be carried out. But the South African War shows plainly that whoever wishes to obtain a decisive result must press the attack home in spite of all difficulties. Only the attacker can use to good effect the shortcomings and blunders of the enemy. Whoever plans in advance merely the warding off of attack and a system of defense has already recognized the superiority of the enemy before the decisive blow is struck.

If weakly held positions could not be taken by numerically superior forces, it must be attributed to the faults committed by the English. This disparity between attacker and defender was apparent both in earlier wars, and to a greater extent in South Africa; the more inadequate the co-operation of the artillery, the less protection the nature of the country offers, the more difficult will envelopment become. But a skillful and energetic leadership has even in South Africa been victorious without a great superiority.

* "War in Practice." By Major B. F. S. Baden-Powell, Scots Guards.

Without doubt the attack has become more difficult and more costly for infantry. The troops can only respond to the demand made upon them if they find a support in the inflexible will of the leader who is determined to win in spite of all difficulties.

All half measures, then, are fatal. Our attacks will be bloody, but they will not exact greater sacrifices from us than Frederick the Great demanded from his infantry in all his serious battles. Because the expectation of incurring heavy loss restrained a leader from attacking; because, owing to the dislike of the Boers to hand-to-hand fighting, it was nearly always possible to maneuver them out of their positions; because an attack already begun was not pushed home, it need not be inferred that a frontal attack is generally impracticable. The South African War only confirms the lessons of earlier wars:

1. That the attacker, generally speaking, should have the superiority, the great advantage of which shows itself in the power to envelop.
2. That every well-prepared attack, which is founded upon the principle of fire superiority, must succeed. (Eland-slaagte, Driefontein.)
3. That the supposed dictum as to the impracticability of frontal attacks is one that cannot be sustained.
4. That the troops must, under cover of the darkness, win what remained unattained during the day. (Modder River, Spion Kop, Paardeberg.)

"What form now does the infantry attack take, after the previous lessons have been turned to account; what can we learn therefrom for the advance over level country, if we have nothing to suffer from the enemy's artillery?"

The English infantry was surprised by the enemy's fire at Magersfontein and Colenso in close formation, at Belmont and the Modder River in battle formation. In order to avoid similar experience, a new fighting formation at ample distance from the enemy—about eight miles at Poplar Grove, for example—was adopted, which permitted only of movement straight forward; an advance in such a formation was only possible where the veldt offered no obstacles and the

important question was to hold the enemy. The brigades formed with their four battalions a sort of open double column, with an interval of between three and four hundred yards between the battalions. The battalions opened their columns in such a way that their eight companies, each in a thin line, with at first two paces interval between the men, which was finally increased to twenty, followed with an interval of from a hundred to one hundred and twenty paces.

The advantages of the deep formation, and of having the troops well in hand, so that they could also be used for other purposes than a purely frontal one, disappeared. As the brigades advanced in complete fighting formation, the cursory information obtained by the cavalry tumbling against the enemy's positions sufficed. But such a method must form the exception. For serious attack such scouting would not, however, suffice. Out-pickets may be able to prevent approach, while foot patrols, turning the slight cover of the ground to the best advantage, may be able so far to approach the position that they can make out details. This method was almost always neglected by the English, although the necessity for a more accurate scouting both for infantry and cavalry repeatedly showed itself. Here infantry officers' patrols must do the work, who, ensconcing themselves under cover before the position, must examine the country with good glasses, calculate distances, and signal their observations by means of flags. By such so-called patrol-groups the advance of their own infantry under fire, even over wide distances, can be assisted.

When the position of the enemy is approximately ascertained, a further extension of the fighting line takes place. On the 18th February, at Paardeberg, four out of the five battalions of the Sixth Division were at once moved up into the firing-line. Each battalion of eight companies occupied a front of from 400 to 500 yards, formed in three lines, of which the first two were in skirmishing order, with intervals of about two yards; the third line consisted of two or three companies in close order. The whole front of the four battalions covered more than 2,000 yards.

The Highland Brigade, on the right of the Sixth Division, went, however, further in the extension of their fighting front. Towards 7 A.M. they broke up their bivouac east of Paardeberg Drift, and advanced in an easterly direction, the Argyll and Sutherland Highlanders leading, followed by the Black Watch and the Seaforths, at a distance of some 2,500 yards from the enemy's front, in long ranks one behind the other, with four paces interval between the men, until the head of the Argyll and Sutherland Highlanders had arrived level with the artillery on Gun Hill, behind the left wing of the Sixth Division. Here, after turning left about, the whole brigade, except two companies of Seaforths, who followed behind the left wing, advanced over the open plain towards the river in an extended, weak skirmishing line, with a front of more than 4,000 yards without supports and reserves. The English, without doubt, went too far in broadening their front; but the new weapons undoubtedly permit an extension of space in the attack of single units, which, however, must be less than in the defense.

In possession of a long range weapon, fitted with a convenient, long-distance sighting arrangement, the English infantry allowed themselves to be enticed, by the distant fire of the Boers at ranges from 1,200 to 1,300 yards (the Guards at Modder River), even 1,600 to 1,700 yards (Sixth Division at Paardeberg), into opening fire on the enemy, whose position could not be detected even with the most powerful glasses.

The complaints, recurring again and again in all reports, that it was almost impossible to discover the enemy, who lay motionless behind their cover, shows the necessity of training the eyesight of officers and men in detecting difficult objects at medium and distant ranges. The battles in South Africa confirm the old rule that if an attacker has once opened fire at long range, he generally does not get within close range. At once to throw oneself down to return it, when the enemy opens fire, shows how fatal peace training is. The losses were in any case small, certainly not in any way comparable to those suffered by our Guard in the advance against St. Privat through the effects of the Chassepot fire,

without being able to return it. Small losses must be borne, until heavier losses make it necessary to open fire with individual units, in order to make the further advance of the main force possible.

Just for these duties machine guns have shown themselves very useful. Every English battalion had one of these weapons. Whilst in the Soudan these guns were used as batteries against the dense masses of the Dervishes, in South Africa they were used with the battalions. Often there was no opportunity for using them, which was left to the discretion of the commanding officer. When attacking it was difficult to get the weapons on the carriages on which they were mounted forward, as they offered a mark like a gun. It was not without reason that an officer said: "It was as if their outward appearance had made leaders and men alike forget that they had in their hands a weapon of the limited efficiency of these guns." As the Boers never offered good targets for machine gun fire, the troops were dissatisfied with the effect they produced. In the attack on Talana Hill a machine gun proved very effective in a small wood behind a wall; in open country the guns were, however, very quickly silenced. This, for example, happened at the Modder River to the Scots Guards' gun at 900 yards, at Magersfontein to the Seaforths' at 600 yards, also at Rietfontein on the 26th October, 1899, the Gloucesters' guns at about 900 yards.

Wherever the attempt was made, the English infantry in their skirmishing lines were able to advance with only small loss to a distance of between 700 and 800 yards from the enemy; then, however, these thin firing-lines undoubtedly showed themselves much too weak, either to advance further or to gain undisputed fire superiority. The new English regulations therefore lay down that in their skirmishing lines, with intervals of six to twenty paces, when a distance of 600 yards from the enemy is reached, the line is then to be brought up to full strength, that is, a man to every yard. It is considered an advantage of thin skirmishing lines that they suffer less from fire, that each man has greater freedom of movement, that they are more difficult to locate, that pre-

sumably the enemy will also open fire upon them later. But certainly there is some ground for stress being laid upon the fact, that a man's sense of duty, when in the thin firing line he suddenly finds himself exposed to danger, wavers sooner than when he sees his comrade close to him in the same action.

The question whether on principle thin or close skirmishing lines are to be employed does not permit of a definite answer. Our duty must be to bring into position a firing-line superior to the defender's at close range. If we have to advance through country with cover, which interferes with the effectiveness of the enemy's fire, we immediately enter upon the decisive fighting, and we must utilize the advantage of a uniform bringing up of skirmishing lines possessing fire superiority; if we have to advance over open country nothing remains but to move forward with thin lines, gradually strengthening them to the fullest extent. Stress has been laid upon the point that in this advance in several lines, one behind the other, the units will get mixed, and that also the rear lines might fire upon the advanced ones. The first point must be conceded; the second, at least as demonstrated by the war in South Africa, affords no ground for apprehension.

Doubts have also been expressed whether the reinforcements can reach the firing-line. The war in South Africa proves this. At Magersfontein the Highland Brigade, holding on to their close-range positions, were reinforced by a battalion which advanced by rushes and even succeeded in gaining another stage in advance; at Paardeberg a half-battalion of the Cornwall Regiment were equally successful, reaching the firing line partly by creeping and partly by rushes. In general, it is recommended that the reinforcements be brought up by rushes to about 200 yards from the firing-line, the last stretch to be crossed by the men creeping, as soon as they arrive within the fire zone directed against the skirmishing line. At what distances the principal fire position will lie depends upon the nature of the ground and the results of its examination, as well as upon the efficiency of the enemy's artillery. The attack to-day consists, above

everything, in winning fire positions. Every precipitate advance from these, if the fire of the defenders is not yet weakened, may even lead to the destruction of the attacker. This struggle with all its disappointments and repulses, may last for hours, and even throughout an entire day. The attacker will be forced to try and adapt himself to the tactics of the defense, and he may even, under some circumstances, have to entrench himself. Thus the chances of the attack and defense are gradually more and more equalizing themselves, although it is certain that as the battle progresses, the moral superiority of the advancing attacker will increase proportionately as the defender on his part begins to bleed to exhaustion.

When once the fire of the defender has been weakened the further progress of the attack must vary according to circumstances. The view has been chiefly held that the best method of advance is by rushes by companies, as soon as reinforcements have reached the firing-line.*

But these reinforcements, having worked themselves forward into the enemy's fire without firing a shot, would plainly be glad to be able at least to open fire. Were the strengthened line now to spring up, a heavy fire would be directed against them, which would soon compel them to throw themselves down again. If a rush is to succeed, the fire must first have been effective for some time; all regularity of movement must be discarded.

The section leaders must independently take advantage of every opportunity to bring their men closer to the enemy. It is just in this that English officers so often failed. Any preparation taking time, which the simultaneous rush for-

* In the "Militärischen Betrachtungen über den Krieg in Sudafrika" (Beihet 8, *Militär-Wochenblatt*, 1900), the following observations occur: "The men do not all rise together; this gives a watchful enemy time enough to greet those who get up last with a well directed fire. Accordingly, even short rushes with long lines become too costly to be carried out for any length of time. Small groups, on the other hand, can be put in movement almost immediately, and surprise, in my opinion, is the only thing that can guarantee a rush success. For this reason it should only last as long as the surprise. Everything likely to attract the attention of the enemy by a sudden cessation of fire must, therefore, be carefully avoided. And this is alone possible with small groups."

ward of long lines especially calls for, is, as it attracts the attention of the enemy, bad. Quick as lightning must the springing up from the ground and the rush forward follow each other; whether the men move with their breech-blocks open, with loaded or unloaded weapons, is immaterial. In the rush forward the men are generally too much out of breath to shoot immediately; rapidity of movement is the main thing.

Indeed, in the Franco German War we experienced increasing difficulty with each rush in making the men rise quickly and carry their rush forward far enough. English officers fully bear me out. It is obvious that on principle the rushes must be as long as possible, so as not to have to repeat oftener than necessary what is the critical and the most difficult moment to be got over. This is the view taken up by the new Austrian and English Regulations. The extent of the rush is limited by the staying powers of the men and by the enemy's fire. It will be easier to shorten the rushes than to prolong the short ones to which the men have been trained. If under favorable circumstances a rush can be some eighty yards long, it will come down to forty yards or even less at close ranges. It is of decisive importance for the length of the rush, whether the losses occur when the men rise from cover or whether during the rush itself. In the first case there will often be no rush forward at all, or the men will throw themselves again to the ground after ten or fifteen yards.

This small success in winning ground does not compensate for the waste of moral strength in making the men get up quickly. Creeping forward, however, comes quite naturally in the field; the men get over the ground more quickly, with fewer losses and without great fatigue. The difficulty of getting troops to storm under these conditions is not experienced. In the open country this creeping forward was carried out in spite of a steady fire. English officers assert that it is practicable to support these units while they are creeping forward by firing over their heads.

The Boers in this way often succeeded in driving the already disorganized enemy out of their positions by means

of their rifle fire. The firing line, continually firing, crept forward slowly and steadily in a way which is said to have exerted upon the defenders, who were tied to their positions, an impression all the more disquieting and paralyzing the nearer the uncanny, creeping, firing, serpent-like line approached them, and the less they were in position to inflict perceptible losses on these small prone objects, especially when they themselves were kept persistently under an effective fire.

The war shows, in opposition to the view held in our Field Service Regulations, that firing lines can lie opposed to each other at close ranges by the hour without any decisive blow being struck. English officers find an explanation, which is also confirmed by their opponents, in the circumstance that the Boers could fire at close ranges without raising their heads from cover, and only left their protecting cover if the English rose to advance. At Spion Kop the firing lines lay only about 250 yards apart from sunrise to dark.

In other cases, when the Boers had gained the fire superiority, they still waited and continued the fire. The English troops could scarcely have held the position against an advance to storm. As this did not follow—rising up and retreating was synonymous with destruction—their power of resistance relaxed during the long fire action, and in order to get out of this apparently unbearable position, which was becoming more acute every minute and paralyzing every vigorous resolve, the only possible alternative seemed to be to lay down their arms. It only needed some trifling incident to have sent them flying in wild confusion. It is just in this that the importance of the storm attack lies. An energetic enemy does not give ground to lead alone; he will not willingly expose himself to certain destruction from a pursuing fire; he needs first the advance of an attacker determined to come to hand grips to force him to evacuate his position. The attacker will advance by rushes and creeping as near as possible to the defenders; any premature forward rush, any isolated advance of single units, may jeopardize what has up to then been a success.

It is just here that disappointment over the exact effect produced by weapons is easy. The silencing or weakening of the enemy's fire gives only a deceptive check—an error which generally avenges itself by destruction. It appears to be somewhat hazardous to place the power of sending the men forward to storm in the hands of anyone, especially in those of the youngest section leader. To wait and keep up the fire is nearly always better than a premature rush forward. At Driefontein men advanced to storm when they saw some of the units break away from the firing line. At Elandslaagte, on the other hand, there was a feeling in the whole line that the decisive moment had arrived, and that they must either go forward or back.

"But how is the storming to be carried out?"

The one thing certain is that an advance without fire support is impossible unless the defender evacuates his position with the bulk of his men. For a certain time the artillery can well afford this support, but after a time it must cease, or better still, direct its fire upon the ground behind the position in order not to endanger its own infantry. Perhaps the defenders will remain under cover. But how if they rise, or how even if they only fire in a horizontal direction without rising? English attacks have failed even when the stormers had arrived within from fifty to eighty paces of their goal. The Austrian Regulations, recognizing the value of fire support, have decided that one unit should remain lying down; but this appears hazardous, when the beat of the drums and the bugle puts everyone in motion. What, then, finally, can a single unit effect, even for the front of a battalion? Are the men to throw themselves down and take up the fire combat again if the enemy opens his rapid fire? May this not be the beginning of a repulse? What will become, then, of the units which have been driven back?

This cannot be the solution. The enemy is worsted in the fire combat, that is, he attempts to protect himself against the storm of bullets and shrapnel hurtling over his cover. During this storm the enemy must be kept under cover and not permitted again to raise himself. This appears only possible through regular conventional fire carried out at the

commencement of the movement. To propose using this against an unshattered enemy under cover in order to worst him, as has been recommended several times since 1880, spells destruction. Here the question is only with regard to the further keeping in check defenders already broken. In the South African War success was several times achieved in this way.

One of the most distinguished and perhaps the best tactician of the English generals, Sir Ian Hamilton, who led his troops against the enemy at Elandslaagte and Doornkop, wrote to me as follows on this question: "My view is, that no matter what regulations are laid down in peace, men will fire when advancing to storm. Nothing will stop them; they rely upon it. It is as well, then, to count upon it in advance. The greatest danger is that the men will throw themselves down instead of continuing to advance. When stormers once lie down, they only get up to retreat."

The views of English officers, who are most experienced in war, certainly deserve consideration.*

*Von der Goltz writes in his "Training of Infantry for Attack": "The nearer the line approaches the defenders, all the more does the inherent effort of everyone show itself, to reach the enemy's position as rapidly as possible; from lying down to shoot comes the kneeling, then the standing to fire, and finally quite naturally follows firing while moving. Firing when in movement is permitted by the regulations, and is certainly ordered in these circumstances. There arises here a very natural feeling not to allow the enemy who is kept lying down to get up again. This fire when moving must not be confused with the former firing in movement of long lines of skirmishers at distant ranges, which was condemned in its day, and by which the keeping down of a worsted enemy, was not intended, but the overthrow of an intact one."

GENERAL FRENCH'S CAVALRY CHARGE AT KLIP DRIFT.

[The following inspiring account of the brilliant and successful charge of French's cavalry division at Klip Drift is taken from Colonel Waters's translation of "The German Official Account of the War in South Africa." This charge occurred in the advance of Lord Roberts's column for the relief of Kimberley in February, 1900. French's cavalry had marched in advance and seized Klip Drift on the Modder River on the 14th of February, and held it till the arrival of General Kitchener early on the morning of the 15th with the Sixth Division (infantry).—EDITOR.]

GENERAL FRENCH intended to continue his advance for the relief of Kimberley early on February 15th, in order, if possible, to reach that town on the same evening; but the Boers had blocked the road during the night, a detachment, about 900 strong with three Krupp guns, having occupied the kopjes north of Klip Drift in a semi-circle about two and a half miles in extent. Somewhere about the center of the Boer position there was a col 1,200 to 1,300 yards wide, which connected two neighboring kopjes, and the ground sloped gently up from the river. This col was within effective range of the Boers ensconced on both the kopjes, the three Krupp guns being on the western hill.

After the Sixth Division had occupied the position on the heights between the two drifts, where the cavalry had been, the latter assembled about 8:30 A. M. at Klip Drift. The patrols soon succeeded in ascertaining the strength and the extent of the enemy's position, because the Boers, contrary to their usual custom, opened fire on them at long range, and so disclosed their whereabouts. In consequence of the reports sent in, French ordered his batteries of horse artillery, which were soon afterward joined by two batteries of the Sixth Division, and two twelve-pounder naval guns, to come into action on the heights on the north bank. Supported by the fire of his guns, he intended to break through the center of the enemy's position. The artillery opened

fire at about 2,200 yards range, spreading it along the entire Boer position, and it soon succeeded in silencing the three hostile guns. Simultaneously with the opening of the artillery fire, the infantry of the Sixth Division advanced north of the river against the Boers on the high ground.

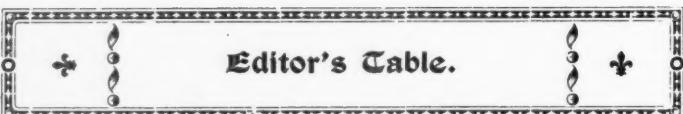
The hour was just after 9 A. M. French assembled his three brigadiers, informed them of his intention, and ordered Gordon's brigade with its two batteries of horse artillery to form the first line, with four yards interval between each two men, and to break through, across the col in the direction of Kimberly. The Second Brigade, under Broadwood, was to follow in support in line at 500 yards distance, while the First Brigade, under Porter, together with the remaining five batteries of horse artillery, which were to continue firing until the last possible moment, was to form the third line.

The two leading brigades at once deployed, and the horsemen, who were soon veiled in dense clouds of dust, dashed into the enemy's fire, the divisional general riding at the head of the Second Brigade. The spectacle displayed to the eyes of the Sixth Division was magnificent; every man held his breath; the moment was one of extreme tension, for it seemed as if the bold attempt must be utter destruction of the gallant riders. It had, however, already succeeded before the spectators were really able to appreciate the fact. After the dense clouds of dust, caused by the 6,000 horses, had somewhat dispersed, the three brigades were seen to rally nearly a mile beyond the enemy's position, and the road to Kimberly was open. It was marvelous that the division should have ridden almost without loss through the Boer fire; the casualties amounted to only one officer, and fifteen men killed and wounded, together with about twenty horses. This remarkably small loss is explained chiefly by the great rapidity of the maneuver, which completely surprised the adversary. The impression caused by the dashing mass of horsemen was such that some of the Boers took flight before the cavalry had approached within effective rifle range. Those of the enemy who held their ground fired for the most part too high in their excitement,

especially as they had occupied, contrary to their usual custom, the summit of the heights and not their foot. The cavalry too were enveloped in such dense clouds of dust that they offered no certain target. The effective preparation and support of the attack by the artillery, contributed, also, greatly to its success, and one of the Boers present stated that "the fire from the English guns was such that we were scarcely able to shoot at all at the advancing cavalry." The main body of the Boers, leaving fifteen killed and wounded, fled towards Magersfontein, and their terror was such that, by their exaggerated accounts, they communicated their dejected spirits to other burghers in the laager. A number of Boers, unable to get their horses in time, had surrendered. A British officer described his impressions in the following language:

"The enterprise appeared to us at first as quite hopeless; we believed that only a few of us could come out of it alive, and, had we made a similar attack at Aldershot, we should certainly have all been put out of action, and have been looked upon as idiots. When we had galloped about a quarter of a mile, we received a very hot frontal and flanking fire, and I looked along the ranks expecting to see the men falling in masses; but I saw no one come down, although the rifle fire was crackling all around us. The feeling was wonderfully exciting, just as in a good run to hounds."

This charge of French's cavalry division was one of the most remarkable phenomena of the war; it was the first and last occasion during the entire campaign that infantry was attacked by so large a body of cavalry, and its staggering success shows that, in future wars, the charge of great masses will be by no means a hopeless undertaking even against troops armed with modern rifles, although it must not be forgotten that there is a difference between charging strong infantry in front, and breaking through small and isolated groups of skirmishers.



Editor's Table.

THE JOURNAL OF THE U. S. INFANTRY ASSOCIATION.

By virtue of an arrangement with the Infantry Association, its *Journal* will hereafter be furnished members of the Cavalry Association at \$1.00 per annum. Under like terms the CAVALRY JOURNAL will be furnished to members of the Infantry Association. Members of the Cavalry Association desiring to take advantage of this club rate will please to remit the additional fee to the Treasurer of the Cavalry Association, who will have the *Infantry Journal* mailed to them.

This arrangement has been entered into to facilitate and encourage a study of the tactical use of the two arms combined in war, and to enlarge the usefulness of the two Associations in disseminating professional knowledge throughout the army.

WHY NO "COMMENTS?"

Has the sword actually become mightier than the pen in our cavalry, or is it that the book and the study thereof have driven both from the field? We are seeking the reason of the rest or rather the arrest of the cavalry pen. The Cavalry Association, which is the cavalry of our service, wants to hear from its members, and the pages of its JOURNAL are its chosen medium. There are no elect few to whom its pages are open—it belongs to all alike. Whenever one of us conceives that he has anything professional worth saying to his fellow cavalrymen—and such a feeling comes to everyone of us at some time or other, no matter how modest may be his mould—he has the JOURNAL at his command to say it in.

The service misses the "comments" which used to be such an interesting feature of the JOURNAL. Is it to be inferred that we have attained that millennial state of subordination and discipline among us which enables us to read article after article in the JOURNAL without having now and then aroused within us the spirit of disputation? Or is it that our garrison school work so absorbs our time that we have none left for writing our views on any subject through the JOURNAL? Or is it that we have no time even to read the papers in the JOURNAL?

The JOURNAL hopes to reap a harvest from the War Department order requiring that essays shall be submitted in the post-graduate course of the garrison school. The editor requests that copies of such essays may be mailed to him with permission to use them in the JOURNAL.

THE MILITARY SERVICE INSTITUTION.

The editor of the *Journal of the Military Service Institution* is to be thanked for the general index which he has just issued, and he and his able assistant, Captain Thomas A. Roberts, Seventh Cavalry, are to be congratulated upon the excellence of their work. Too much praise cannot be bestowed. It was a large undertaking. The form of the work, its style, its convenient arrangement, its scope, the soft dead white of its pages and the clear black print of its type, all appeal to one.

In glancing through this index, one who has not kept steady pace with the progress of the Military Service Institution, is struck with the array of professional subjects that have been discussed in the pages of its *Journal*, and one has but to look over the index of authors (Captain Roberts's part of the task) to be convinced that most of the subjects have been ably treated, for in that list we find the names of most of the officers of our service—not all of them by any means—that have distinguished themselves as writers or otherwise since the Civil War.

And in looking over this index one cannot but be reminded, if one needs to be reminded, of the vast good the

Military Service Institution has done for our service. When, on that day in 1877, General Stanley, General Fry, General Rodenbough and Colonel Lieber issued the circular upon which the Institution was founded, they laid the corner stone upon which has been builded all the professional culture existent among us to-day. And there is professional culture in our army, more and of a higher grade, taking it as a whole, than there is in any other army in the world. And there ought to be. And it dates back to the founding of the Military Service Institution. All the other agents of our culture have followed in natural order, the Service School at Fort Leavenworth, the Cavalry, Infantry and Artillery Associations, each with its Journal, the Lyceum, the examinations for promotion, etc.

But the professional culture of our officers has not been the only aim or the only achievement of the Military Service Institution; its field has been even broader; its purpose has been the general improvement of the military service of the Nation, not alone of the Regular Army but of the National Guard also. Scarcely a reform, scarcely a change for the better, has been wrought in the service within the last quarter century, but has been first suggested in the pages of its *Journal*.

Few of these changes have originated at the War Department, but, thanks to those in authority there, they have been read of in the pages of the *Journal of the Military Service Institution* and put into effect. And through the War Department the influence of this Institution has reached the halls of Congress.

The Institution and its *Journal* are a quarter of a century old this year. Long may they live, and ever wax stronger in influence and numbers—the Institution in the number of its members and the *Journal* in the number of its readers and contributors.

Every officer of the army ought to be a member of the Military Service Institution.

FORAGE ALLOWANCE FOR INFANTRY OFFICERS.

Horsemanship is an accomplishment, it is not a natural gift. It must also be acquired in one's youth. One may have a knack at learning to ride, as one may have a knack at learning languages, but one can no more ride without learning to do so, than one can speak French without learning the language. And one can no more learn to ride by walking a half-century, than one can learn to speak French by talking English for a lifetime.

All this is said by way of inviting attention to the Government's inconsistency in expecting its infantry officers suddenly to become horsemen upon their promotion to majority, or appointment to the staff, without having given them the opportunity or encouragement to acquire the art of horsemanship. By act of Congress they become mounted officers in name, but, unless they have, at their own personal expense and under every sort of discouragement and inconvenience, kept horses during the long years that they have served as company officers, they come into their promotion certainly lacking a knowledge of the art which gives the office its distinctive name.

They ought to be horsemen in fact, as well as mounted officers in name; and they ought to be encouraged by the Government to become, and to continue to be, horsemen. The little knowledge of horsemanship one acquires at the Military Academy, good as it is for a foundation, cannot last a lifetime—cannot last a quarter of a century—unless it be kept alive by practice. And a large proportion of our infantry field-officers have not had even the advantage of that short course of training. To be sure, most efficient infantry officers, while in their junior grades, serve in one or more of the regimental staff positions which entitle them, for the time being, to keep their mounts; but this is not enough. To be a good rider one must ride habitually, and the mounted officer that is not a good rider lacks just so much in efficiency. Every bit of attention that a major has to devote to his personal safety in the saddle, is just that much attention taken off his battalion.

Many infantry officers, we may say most of them, a large part of the time, in the face of all discouragement, keep horses and buy forage for them. They have no stables, but must find an old shed here or there to put their horses in, or beg a stall in a troop or quartermaster's stable. This is not as it should be. The Government ought to find the forage and provide stable-room for at least one horse for every infantry officer. It would make for efficiency, and it would be a small price to pay. And it would be fair to the infantry officer. It would not be expecting the field and the staff officer of infantry to be what he has had scant chance to become—a horseman.

THE NEED OF STAFF TRAINING.

We are fortunate in being permitted to include in this number of the JOURNAL the remarks made by Major Swift, instructor of military art, at the opening of the first term of the Infantry and Cavalry School and Staff College.

The following letter, which is also reproduced by permission, expresses the appreciation of a distinguished Confederate general and accomplished staff officer :

“SOUTH ISLAND, S. C., November 4, 1904.

“My Dear General Bell:

“I have just finished reading the admirable “Remarks” by Major Eben Swift, introductory to your course at the Staff College, of which you kindly sent me a copy; and I cannot refrain from thanking you for it and expressing my very warm appreciation of their value and suggestiveness. When I picture to myself an army with a staff trained in the course he sketches, I indeed seem to see the dawning of a great day for the Nation. At last the lesson is being learned that the organization and handling of armies is a great and complex art. I believe it is perhaps the greatest and most complex of *all* arts. And it demands long study and training, not only at the head of the army, but throughout the staff of every organization in the army.

“In our Confederate army our staffs were often filled, from top to bottom, for sentimental reasons. Anybody would do for a staff officer. Sometimes even our best generals had but vague appreciation of the situation. There

were, indeed, many cases where men without previous training developed marvelous efficiency; but there were too many who fell far short. For instance, read the official reports of Malvern Hill by Lee's chief of artillery and by the Federal chief, and note the contrast. Yet the Confederate chief was retained to the close of the war.

"Really, the *raison d'être* of the book I have been trying to write for many years has been just to point out lessons teaching the necessity of staff training and attention to matters of smallest detail.

"Very sincerely yours, E. P. ALEXANDER."

ONE YEAR REENLISTMENTS.

Old soldiers are what we miss most in our ranks to-day, and we use the adjective "old" in a very limited sense, meaning soldiers in a third or a second term of enlistment. No doubt it is a sign of prosperity in the land and a recognition of the excellence of training a man receives in our troops and companies. Corporations and individuals requiring trustworthy employees are on the lookout for discharged soldiers who can show a discharge certificate with the word "excellent" written on its face. Especially are such men wanted to fill positions requiring the management of groups of men.

Much as every troop commander desires to see his men better their condition, he cannot but regret the loss of every good man that quits his troop. He wishes above all, sometimes he hopes, and, if he has not lost faith through disappointment, he may even pray, that Congress would increase the pay of the noncommissioned officers to such a figure that every good soldier would strive for chevrons and cling to them when he got them.

But there is another thing Congress could do which might afford our troops some relief in this matter, namely, authorize reenlistments for a term of one year. If such a law could be passed and no soldiers took advantage of it, nothing would be gained to the service or lost to the Government. But some soldiers would surely take advantage of it, and in every such reenlistment the troop would gain a

trained and useful soldier instead of an untrained and (for many weeks) useless recruit, and the Government would save the expense of his recruitment.

Many a soldier at the end of his term would be willing to "take on" again for another year in his troop, especially if he be a noncommissioned officer; while he feels that he is not willing to enter into another contract for three years, until he has gone out and tried his chance in civil life.

But such a short term should only hold for reënlistments in a soldier's own troop. The discharged soldier should not be allowed to reënlist for a single year in any other troop or company than the one from which he was discharged; and the reënlistment should be made only upon the day following his discharge. A different rule would only encourage the spirit of change which already exists too largely in our ranks.

And further to encourage reënlistments, the Regulations might provide that every soldier upon reënlistment should be granted a furlough which, considered with what furlough he had received during his former term, would amount to three months; such furlough to be given at such time as the soldier desired it, provided his services could be spared.

One-year reënlistments with the additional provision that a soldier taking advantage of it in the Philippines should not thereby lose his travel allowance, would, it is believed, lessen the number of discharges in those islands, and do away with the necessity for transferring so many men from regiments about to start for service across the seas.

OUR CAVALRY AN ORPHAN.

The trunk of an army is its infantry. Indeed the infantry is the army, inasmuch as every army must be judged by the numerical strength and the quality of its infantry. The other arms and the staff corps are merely its members.

So the head of an army is the head of its infantry. An army commander is a commander of infantry, and he should be chosen mainly for his ability to command infantry in

campaign. He must, of course, understand the coöperation of the other arms, but, if he would win victories, he will leave to the chief of artillery the conduct of his artillery, and to the chief of cavalry the employment of his cavalry. At least, he will seek the counsel of such chiefs and most likely follow it, and he will leave to each the details of his own arm.

Every branch of an army needs a head, a father, to guard its welfare, to watch over its training in peace, and to direct its employment in war. The army commander or its chief of staff can no more properly look after the details of all the staff departments and fighting branches of the army, without assistants, than the president of a great railway can manage all of its departments, without a chief at the head of each one to assist him. And there are few railways that employ a larger number of servants, or possess a more complex system than our army even at its peace minimum.

The necessity for a head to every department and branch of our army, *except its cavalry*, is recognized by our Government. The cavalry alone has no chief, and it suffers accordingly in the uniformity of methods and equality of training among its regiments, in the equity of their assignment to stations and duties, in the character of their equipment and mounts, and in other matters that affect their contentment, efficiency and effectiveness.

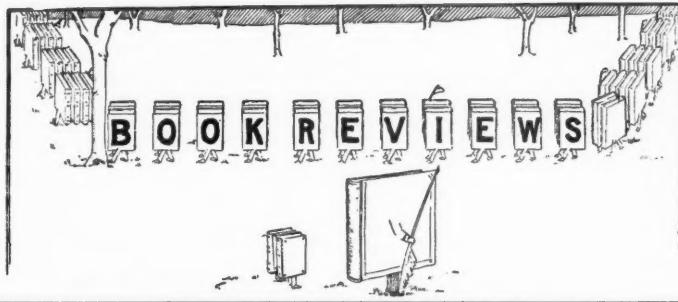
Who doubts that the Ordnance, the Quartermaster's, the Medical and other departments are better managed in every way than they would be if they had no chiefs? Even if all the supply departments should be consolidated into a single department, it cannot be doubted that each branch of it would still have its own sub-chief, and that only by such a division of the duties could efficiency be insured.

That the same is true of the line of our army cannot be doubted by anyone that has watched the change wrought in our artillery since a head was given to it. Up to that moment the artillery was a corpse. The well known affection that our last two commanding generals had for it was of no avail to quicken it. They had the rest of the army to look after; they could not give their entire time and atten-

tion to the favorite arm. But since then the artillery has not only come to life, it is the liveliest member of our military body to-day; it increases in life and efficiency with each succeeding day. And one has but to read the orders issuing nowadays from the War Department concerning it, to be persuaded that the change is mainly due to the chief.

Are we ever to have in our service a Chief of Cavalry? An officer with rank and prestige to give his entire time and thought to us only? Whose advice will be asked and listened to at the War Department? Whose judgment in cavalry matters will be depended upon? Whose decisions will be accepted? Who will sit at the seats of the mighty and relieve the Chief of Staff of the infinite details concerning us? Who will be a father to us? Or are we always going to be an orphan?

All that lacks is the creation of the office. Right men for the office are not far to seek either among our general officers or our cavalry field-officers. It would only be a question of election.



**Guerilla or
Partisan
Warfare.***

feels deep interest in military affairs, has written a little book that may be read with interest and profit. Its title, "Guerilla or Partisan Warfare," while fairly indicating the purpose and scope of the work, is not respected so strictly that other valuable matter of collateral bearing is wholly excluded.

At the beginning, the author expresses surprise "that before the late war in South Africa, the operations of guerillas were not a part of the curriculum for the education of military officers in England" and that "in January, 1900, there was not one work on the subject in any London shop." By guerilla wars, he means "small wars, wars the leaders of which only had command of a few thousand men at a time; wars in which artillery did not play a leading part; and guerilla warfare in the bush and desert, and guerilla warfare in mountainous districts."

Of this kind of warfare, we may remark, both England and the United States have had much, and their military

Mr. T. Miller Maguire, M. A. L. L. D., Inner Temple, Barrister-at-Law, who has seen field service with British troops and

* "GUERILLA OR PARTISAN WARFARE." By T. Miller Maguire, M. A. L. L. D., Inner Temple, Barrister-at-Law. Hugh Rees, Ltd., London, Publishers.

history, if not text books, their experience, if not their curricula, make it tolerably familiar.

"The difference between partisan and guerilla warfare," says he, "is easier to describe than to define. A partisan—*a partida*, the leader of a parti—is a person in charge of a limited number of troops, whose operations are ancillary to the main operations, and yet, who does not occupy the position of a detaining force." In illustration, Stuart's, Forrest's, Morgan's, Mosby's and Stoneman's operations are cited, "whose object was to assist the general operations by distressing the enemy, perplexing the enemy, ruining the lines of communications of the enemy, and taking the supplies of the enemy."

"The destruction of railways, viaducts, bridges, is an important part of the duties of modern partisan troops." Quoting General H. W. Slocum as to the best method of destroying railway tracks, and as to the value of an efficient corps of foragers, known in Sherman's army as "bummers," Mr. Maguire in a foot-note declares: "No such foragers would be tolerated in France or Germany, or even in Manchuria."

The value of partisans in great wars may be seen from the following: "Four hundred and fifty thousand infantry, 50,000 cavalry, and 1,600 guns, were not enough in 1871 to hold down the French, who, though their "regular army was utterly ruined," were by the activity of their "francs-tireurs and other guerillas," enabled to force the Germans to use an additional "150,000 infantry, 6,000 cavalry, and eighty guns, to protect the railway that formed their principal line of communication." A similar task for similar reasons "was imposed on the 400,000 British soldiers in South Africa."

Still further illustration is discovered in the reduction of La Vendée: "Hoche conceived an ingenious mode of reducing the country, without laying it waste, by depriving it of its arms, and taking part of its produce for the supply of the republican army. In the first place he established some entrenched camps. He then formed a circular line, supported by the Sèvre and the Loire, so as progressively to coop in the whole country. This line was composed of very strong

posts communicating with each other by patrols in such a manner as to leave no free space by which the enemy, if at all numerous, could pass. Such methods had similar results a few years ago in South Africa. These posts were directed to occupy every township and village and to disarm the inhabitants. To accomplish this, they were to seize the cattle, which usually grazed in the common, and the corn preserved in the barns; they were also to arrest the principal inhabitants, and by no means to restore the cattle and the corn or release the persons taken as hostages, till the peasants should voluntarily surrender their arms. Now as the Vendéans were more attached to their cattle and their corn than to the Bourbons and Charette, in due time the peasants surrendered their arms." In Luzon, a like achievement, no less important and difficult, against a chief no less able and influential was accomplished by General J. F. Bell, whose measures, though generally similar to those of Hoche, were far more humanely executed.

But "limits must be set even to guerilla pertinacity; and when a man without uniform, without orders, without any connection with a regular government, and when the regular government was, properly speaking, abolished—when a man of that kind continues a war beyond reason, he then becomes to some extent an enemy of the human race." This accords with our theory and with—I was about to say practice; but experience in the Philippines makes it, at least, very doubtful whether officers will, in future, suit the practice to the theory.

As to Maxim and other machine guns: "That such light and handy and multiple guns are of inestimable value in trackless deserts against a foe ill-armed with artillery, or with no artillery, will scarcely be disputed."

When after Joubert's death, Botha was raised to chief command, "he was not ambitious to command masses of troops, but let the Boers fight in their own way with small flying columns, which appeared unexpectedly here and there, and were everywhere and nowhere at once. During the next few months, the English not only suffered considerable losses of men, but were placed at a serious disadvantage by

the erroneous waste of horses. The English cavalry were kept so constantly on the alert by the activity of these small parties of Boers, that the horses died by hundreds from overwork and from want of food and water."

The Cossacks "are the beau-ideal of partisan warriors. In April, 1899, the Emperor approved of new regulations for the action of Cossacks when in 'lava.' 'The "lava,'" wrote General Krasnov, 'is not, properly speaking, a formation of maneuvers; it is the whole tactical system of the Cossacks, and its form varies with each case. It is combat on horseback in open order, leaving to each man his individual initiative, and to each leader the means of profiting by all the favorable chances of the combat. Thanks to the intervals between the horsemen, the latter can move with rapidity over all sorts of ground, and cross obstacles as easily as if they were alone. They were very skillful in single combat, which was favored by their open order of formation; but they were always supported by bodies in close order. It was this formation, which was taken from the Tartar cavalry and called 'lava,' which enabled the Cossacks to weaken the enemy by isolated actions, and then to fall upon him in close order, so as to strike a great blow.' All cavalry officers should study the "lava."

"Officers should constantly meditate on ruses, stratagems, ambuscades, and surprises. Hannibal was a master of this subject. Ample collections of *ruses de guerre* exist in French, and in the records of the American Civil War, especially in the lives of Stuart, Mosby, Morgan and other partisan leaders. Colonel Pilcher's little book 'Some Lessons from the Boer War,' just published, contains some excellent lessons in this branch of tactics."

The author's ideas on cavalry derived from the Boer War, are interesting:

"In the future a cavalry detachment, well trained with rifle, will probably often succeed in repulsing a superior force, and thus achieve a result which it could not have gained by ordinary cavalry tactics. This shows how important it is to give the cavalry soldier a good infantry training. I think it perhaps superfluous to draw attention to our

absolute unpreparedness with regard to horses in this war. The prevailing idea was either that we should never be called on to fight in a place where a preponderance of mounted men was necessary, or that our proportion of mounted men was sufficient. Be that as it may, we tumbled into a war where a man once mounted was five times as valuable as a man who had no horse.

"The Dutchman has an excellent way of teaching a horse not to stumble into holes. It is as follows: He finds a place where there is a good nest of holes, and he puts a native on the horse and lunges him around over the holes so as to train him not to put his foot into them. I think that perhaps the training of our troop horse is not that which makes him look out sufficiently for holes and bad ground; the more they are ridden over rough ground the better it is for the men who ride them when it comes to war."

Between regular and guerilla warfare important differences are noted:

"The strategical conditions are not reciprocal, and are against the regular invader, as the savage or irregular is not troubled about his lines of communication.

"Observe the swelling or contracting of savage forces, according to failure or success of invader.

"The subaltern officers were formerly of a higher standard of efficiency, relatively, than in regular warfare, but this condition is rapidly changing with the growing importance of individual efficiency in all wars. Still there is much more freedom and latitude of movement for subordinates.

"Savages are masters of surprises, and yet are taken aback by ambuscades and surprises applied to themselves.

"Reserves are not very much required for battles; but the flanks and rear are in constant danger on the march and in the battle.

"Attack early; savages and irregulars are not vigilant at dawn.

"Guns and cavalry produce an enormous moral effect in these wars.

"There is a danger of rushes by day and by night.

"The more irregular and desultory the campaign, the more important is the service of security.

"Attack and not defense is the first principle for regulars in small and irregular wars; but all isolated forces must be well protected, and have clear fields of fire, with flanking positions and obstacles."

The following arouses thought and sounds a warning :

"The natural man—the dweller in the hills and plains as distinguished from the product of the factory or large towns—has other qualifications besides eyesight and woodcraft which make him an ideal recruit. He can usually do with less food than his civilized brother; he will exercise greater frugality and economy with regard to what he obtains; he is an adept at cooking and preparing an impromptu meal; he knows where and how to obtain food if there is any to be had in the country; and he can usually manage to carry it with him in small compass. He is comparatively little affected by heat or cold; he can sleep as soundly on the ground as in bed; he is not often ill, and when he has slight ailments or has met with minor accidents, knows how to treat himself, and requires no medical advice. In a word, he is tougher, harder, more enduring than his more civilized brother, just as it is natural his mode of life should render him. In everything except discipline and armament he is, as a rule, superior to the man he has to fight.

"But now the growth of trade-routes and facilities of communication are rapidly taking away from us and the other civilized powers the privileges of better armaments. The possession of the newest and most perfect weapons is simply a matter of money, and the firms that turn them out will sell as freely to a savage as to the most enlightened of the world's rulers. * * * If Fuzzy-wuzzy be, as often he is, as good a man as Tommy Atkins, or Fritz, or Jacques, and is even approximately as well armed, numerical superiority, knowledge of the country, and better health, will go a long way to redress the balance in our favor, which experience and discipline in these days of loosened fighting may produce."

J. C. G.

Automatic Surveying Instruments.* "Automatic Surveying Instruments and Their Practical Uses on Land and Water," written by Thomas Ferguson, member of the Shanghai Society of Engineers and Architects, is a booklet describing three automatic surveying instruments that were designed and used by the author: the pedograph, an automatic route-tracer for pedestrians; the cyclograph,

* "AUTOMATIC SURVEYING INSTRUMENTS AND THEIR PRACTICAL USES ON LAND AND WATER." By Thomas Ferguson, member of the Shanghai Society of Engineers and Architects. John Bale Sons & Danielsson, London, Publishers.

an automatic route-tracer for vehicles; and the hodograph, an automatic register of courses and distances on water.

The pedograph and cyclograph have been reduced to commercial form and are manufactured by the Nederland-sche Instrumentenfabriek, Oude Gracht, Utrecht, with great attention to detail and care in construction.

A review of the book must consist of a brief description of these instruments, because they are the subject-matter of the book, but it may be said, in passing, that the matter in the book is so clearly and happily expressed that there is a pleasure in its perusal that is independent of the interest awakened in the objects described.

When the reader is informed that the pedograph is a sketching board on which a little wheeled car is made to crawl around and leave behind it a trail on the paper that represents the course pursued by the pedestrian, he may be pardoned for some incredulity, but when he pursues the description further he finds that this is precisely what the pedograph will accomplish without other attention than turning a knob to keep the compass frame parallel with the needle.

The instrument is contained in a case $12 \times 12 \times 2\frac{1}{2}$ inches, and weighs $7\frac{1}{2}$ pounds. It is carried by a sling strap over the left shoulder, and hangs at the hip with the compass at the forward corner where it can be conveniently observed. When the surveyor has carried the instrument over the desired course, always keeping the compass frame oriented, he finds on the paper a trace, drawn to a known scale, of the route that he has pursued.

The cyclograph is almost as startling in its operation and results as the pedograph. In its manufactured form it is designed to be attached to the handle-bars of a bicycle. When the bicycle with this attachment is ridden or trundled over the desired course, there is developed on the sketching board, in plain view of the surveyor, a trace in ink, at any desired scale, of the route pursued. The only manipulation necessary is the turning of a knob or handle which keeps the paper on the board oriented, with its meridian lines parallel with the compass needle. At any time the surveyor

may halt, and opening a hinged window, sketch in such details along the route as may be desired. The marker always indicates on the paper the station point at which the halt is made, and the sketch is always oriented to nature. In fact, the instrument is so constructed that the paper by its horizontality and constant orientation, represents the surface of the ground, while the little wheeled marker rolling over the paper and leaving a trail of ink behind it, represents in miniature the bicycle rolling over the ground and leaving its trail in the dust. The directions and distances pursued by the bicycle are reproduced in miniature on the paper. The mere thought of an instrument that will do his work while he is riding a bicycle over the country roads should be a delight to the worried and often exasperated military sketcher.

The hodograph is a most ingenious contrivance for keeping an automatic record of courses and distances traversed by a boat, and for plotting this record when made. This instrument has not been reduced to commercial form, and the author states that for similar work in the future he would apply the principles of the cyclograph and thus obtain an actual trace of the vessel's course instead of a record of directions and distances.

All who are concerned with "field sketching," whether for military or civil purposes, will follow with great interest and pleasure the pages of this little book, and will be especially struck with the evidence of persistent trial and patient experimentation involved in the designing, development and construction of the remarkable instruments that the inventor and author describes.

In the United States, James C. H. Ferguson, 220 Market Street, San Francisco, is the agent for the manufacturers of the pedograph and cyclograph.

T. H. R.

Free Gymnastics and Light Dumb-Bell Drill.*

"Free Gymnastics and Light Dumb-Bell Drill," is the title of a very interesting and valuable little book recently published by Sergeant-Major J. B. Betts, of the headquarters gymnasium, Aldershot. The system of gymnastics as outlined in this publication is very complete and somewhat of an innovation over that now in use. It is invaluable in the training and developing of the soldier, and if properly directed will enlarge and strengthen the various muscles of the trunk, neck, arms and legs, and will expand the chest, render the joints supple, and will impart to the soldier ease and steadiness of carriage, combined with strength and elasticity of movement. The mode of gymnastics, which includes turning, bending, stretching, lunging, hopping, swinging and combination of movements, is simplified by excellent illustrations, and there seems nothing difficult or severe in executing any of the exercises.

J. E. A.

Tactics

for

Beginners.†

The first thing that strikes an American in reading this little book, is the hopeless confusion he finds in the organization, or rather lack of organization, of the British army. One finds that a company may be commanded by a captain or a major; that a battalion consists of eight companies, and is commanded by a lieutenant-colonel; that a brigade consists of four battalions, and is commanded by a major-general, etc.

The regiment finds place only in the cavalry, and it consists of three squadrons, and each squadron is composed of four troops, and contains six officers and 120 noncommissioned officers and men. One is left to guess what the rank of the squadron commander is. A battalion of mounted infantry contains only four companies.

As in other European armies the telegraph corps forms part of the engineers.

* "FREE GYMNASTICS AND LIGHT DUMB-BELL DRILL." By Sergeant-Major J. B. Betts, Headquarters Gymnasium, Aldershot. Gale & Polden, Ltd., Aldershot, Publishers.

† "TACTICS FOR BEGINNERS." By Major C. M. De Gruyther, p. s. c. Gale & Polden, Ltd., London, Publishers.

The second chapter, "On Time and Space," gives the space, intervals and distances of different units in various formations, and contains several simple but useful problems, and their solutions, in determining the length of columns on the road. It is remarked that the cavalry trot of the English is at nine miles an hour.

The third chapter, "On Outposts," covers the same ground that is usually covered in similar texts under the same heading. We find here the term "outpost companies." Two systems are mentioned: the "chain system" and the "group system." The preference is given to the latter, which consists of Cossack posts, each post composed of a noncommissioned officer and six men. Among the things laid down for a sentinel to "understand clearly," the author, like all the rest, clings to that useless anachronism, the countersign. Does anyone that has had experience in war believe that the countersign is of any practical use?

An excellent set of rules is given for the selection of an outpost line, the best of which is that "time should not be wasted in trying to find an ideal line" at the start. "Patrolling posts" are not mentioned, but we find "standing patrols," which seem to be about the same thing under a different name.

The chapter on "Marches" is an excellent one. Marches are divided into two general classes: First, those made "beyond striking distance of the enemy"; second, those made "within striking distance of the enemy." In the first "the comfort of the troops is the main consideration"; in the second "everything must be sacrificed to tactical considerations." "More depends on the time the men are under arms than on the distance traversed." A march that keeps men under arms longer than nine hours is defined as a forced march.

Napoleon, Stonewall Jackson and Lord Roberts are mentioned as commanders whose personal influence over their men had great effect on their marching powers. Jackson's march in the Shenandoah Valley in May, 1862, is quoted as one of the remarkable marches of history. The author, however, fails to note that the speed of Jackson's "foot-

cavalry" was largely due to the entire lack of packs and impedimenta.

The next two chapters treat of the advance and rear-guard, and reports. Nine important rules governing the writing of reports are given.

Chapter VII discusses the subject of the reconnaissance. The "advanced cavalry," which comes in this chapter, is as concisely treated as could be desired. A distinction is made between the "advanced squadrons" of the cavalry-screen, and the "contact squadrons." The former correspond to the "contact troops" in our text-books, while the "contact squadron is entrusted with a special mission, and acts independently under its own commander."

The entire subject of minor-tactics, beginning with outposts and ending with patrols, occupies only 100 small pages; and yet, so full of meat are they that the "beginner" should feel after devouring them, that he has had all that is worth while on the subject.

In chapter VIII the evolution of tactics since 1866 is reviewed, and the deductions from the campaigns of '66 and '70 are summarized in twelve "lessons," while the summary of the lessons learned from the South African War embraces twenty-six headings.

Machine-guns proved so useful in this war, that since then one has been attached to each British battalion of infantry and regiment of cavalry. They are also being tried in our own service to-day. Each battalion of the Sixth Infantry has a machine-gun. However incongruous and out of place these guns appear borne along upon ugly mules at the dress parades of the regiment, they will find their place and use in any action these battalions may have the fortune to engage in.

The present campaign between Russia and Japan is mentioned, but the strict censorship maintained on either side, had made it impossible for the author to obtain data upon which to base tactical conclusions. Few trustworthy deductions will be drawn from the tactics of this war until after it shall have ended, and the reports of the various attachés shall have been published.

The chapters on cavalry and artillery contain nothing new, but the ones on infantry and "the three arms combined" are the most useful in the book, because they discuss in the light of actual experience, the formations, distances, intervals and methods of advance, etc., in the modern battle of rapid fire, flat trajectory, and smokeless powder—matters upon which all that was written before 1898 is now obsolete.

In one of these chapters, also, are stated the modern rules for the carrying out of orders, viz.:

"(a) A formal order must never be departed from either in letter or spirit, so long as the officer who issued it is present, and can see what is going on, or if he cannot see what is going on, provided that there is time to report to him without losing an opportunity or endangering the command.

"(b) A departure from either the spirit or the letter of an order is justified if the officer who assumes the responsibility is conscientiously certain that he is acting as his superior would order him to act, if he were present.

"(c) If a subordinate, in the absence of a superior neglects to depart from the letter of his orders, when such departure is clearly justified by the circumstances, and failure ensues, he will be held responsible for such failure, and the excuse that he obeyed orders will not be accepted."

These might well have been reserved for chapter XIV, whose title is "Orders." This is a good chapter though it contains nothing original. The importance of the subject, how to write field orders, seems about to have a tardy recognition in our own service. The new Field Service Regulations will have some pages concerning it, with models of such orders. And that it is high time, no one that has made a study of the subject will doubt, after reading some of the orders issued in our recent campaigns in Cuba and the Philippines, not to say at our maneuvers. The basis of this chapter of the book under review is, apparently, Major Griepenkerl's "Letters on Applied Tactics," a book which ought to be on the shelf of every young officer.

Chapter XV gives in concise form the usual treatment of night operations.

The discussion of the attack and defense of villages contains little that is new, but strengthens the student in the

opinion that it is a waste of good infantrymen to send them against stone buildings held by the enemy, before they have been battered to pieces by artillery. Our experience with the stone building on the hill at El Caney might have been cited as an example.

In his chapter on the attack and defense of woods, and wood-fighting in general, the author draws his best lessons from American battles—lessons which the Germans failed to profit by in their campaign against the French. In this connection he says: "Cavalry as such, pure and simple, are of little use in wood fighting. * * * But cavalry trained to fight on foot, like the American cavalry in 1864, are very useful."

Rivers, defiles and convoys have been treated so often in works on tactics, that nothing which is new is left for the author to say.

The last chapter concerns "Savage Warfare," but since the author seems never to have heard of American Indians or Moros, his lessons are not specially useful to us. One characteristic that he remarks of the savages with whom British soldiers have fought is equally true of our Indians—that of seldom attacking at night.

In campaigns against savages like the Zulus, the Matabeles and the Dervishes of the Soudan, whose tactics are distinctly offensive, the author recommends a combination of the *strategical offensive* with the *tactical defensive*. But when the tribes show a reluctance to attack, it is suggested that they may be induced to do so by a retrograde movement or other stratagem calculated to raise their morale. We know that our prolonged inaction and efforts to avoid trouble with the Filipinos in 1898–1899 were interpreted by them as timidity, and were mainly what induced them to bring on hostilities. Would such a policy have worked with Chief Joseph? If General Howard had turned back some Saturday instead of halting every Sunday, would Joseph have taken up the pursuit and attacked?

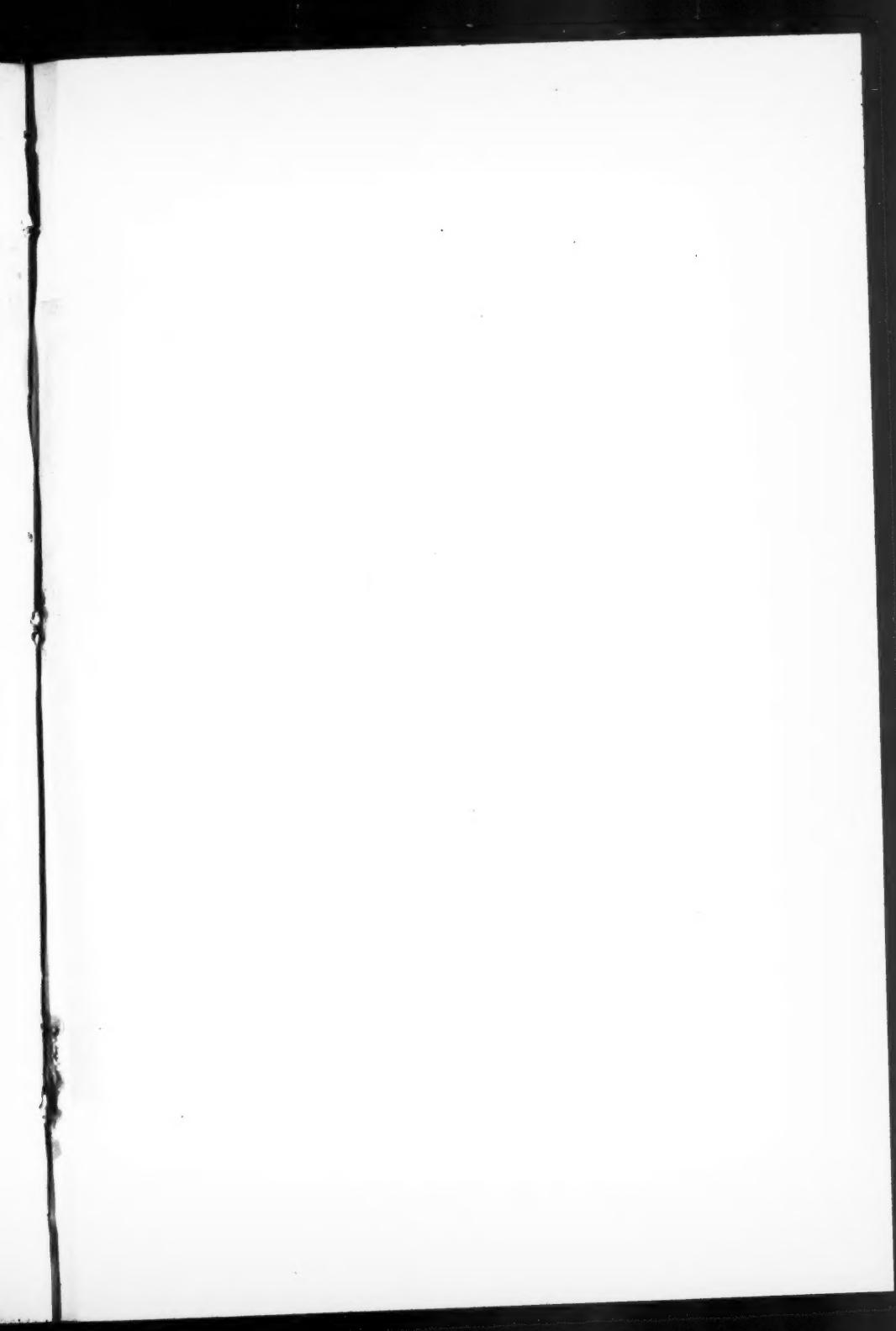
The success of the British at Omdurman, their slaughter of 11,000 Dervishes, leads one to wonder what might have been the result, if Custer's troopers had been armed with

magazine carbines instead of single-loaders. Not a single Dervish got within 250 yards of the British infantry.

On the whole, this is a valuable little book. There is no padding and little quoting. Examples cited seem to have a real purpose. Its form and arrangement are excellent. The discussion of each topic ends with a summary of the conclusions. The marginal notes assist the eye greatly in searching for matter, but they do not make fair amends for the omission of an index.

The author's style is clear and concise, but it would be too much to expect an English military writer to eschew the split infinitive or to say "different from," instead of "different to." Even Thackeray has said "different to," which would make it right, if anything utterly wrong could be right.

M. F. S.





GENERAL THEODORE J. WINT,
U. S. ARMY.

